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MARKETING and TRANSPORTATION SITUATION

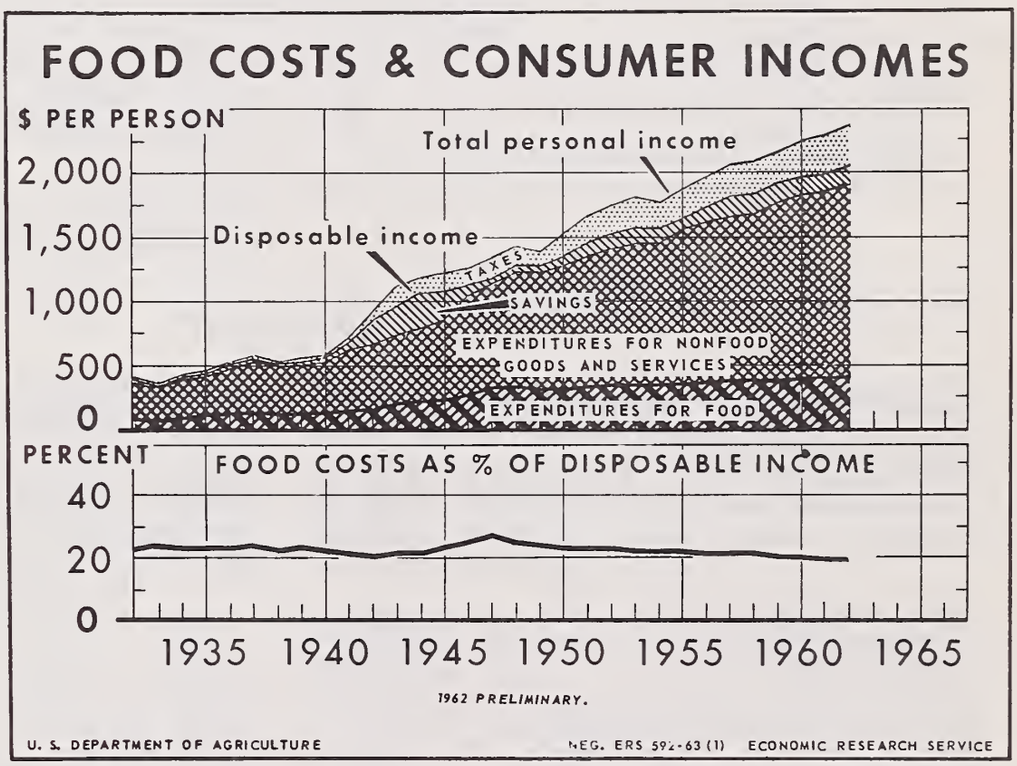


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Consumers spent 19 percent of their disposable income for food in 1962 compared with 23 percent in 1952. Although food expenditures per person rose 11 percent, per capita disposable income increased 35 percent. Food expenditures increased at a slower rate than income because both food prices and consumption per capita rose much slower than income. Expenditures for food, including food eaten away from home, averaged $394 per person in 1962 and $356 in 1952. This increase resulted from higher food prices and consumer purchases of higher quality food and more marketing services.

The proportion of disposable income spent for other goods and services increased from 69 percent in 1952 to 73 percent in 1962. For these goods and services, expenditures per person increased 45 percent during the period and prices increased 17 percent.



IN THIS ISSUE

- Consumer Expenditures for Food
- Farm Food Marketing Bill
- Freeze-drying of Foods
- Fringe Benefits in Food Industries
- Marketing Spreads for Turkeys
- Beef Packers' Costs and Spreads

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STATISTICAL SUMMARY OF MARKET INFORMATION

Item	Unit or base period	1962 Year	1962 Apr.-June	1962 Oct.-Dec.	1963 Jan.-Mar.	1963 Apr.-June
Farm-to-retail price spreads						
Farm-food market basket: 1/						
Retail cost	Dol.	1,067	1,066	1,069	1,080	1,071
Farm value	Dol.	410	401	410	400	389
Farm-retail spread	Dol.	657	665	659	680	682
Farmer's share of retail cost	Pct.	38	38	38	37	36
Cotton: 2/						
Retail cost	Dol.	2.15	2.15	2.16	2.17	---
Farm value	Dol.	.33	.33	.32	.33	---
Farm-retail spread	Dol.	1.82	1.82	1.84	1.84	---
Farmer's share of retail cost	Pct.	15	15	15	15	---
Cigarettes: 3/						
Retail cost	Ct.	27.8	---	---	---	---
Farm value	Ct.	3.86	---	---	---	---
Federal and State excise taxes	Ct.	12.5	---	---	---	---
Farm-retail spread excluding excise taxes	Ct.	11.4	---	---	---	---
Farmer's share of retail cost	Pct.	14	---	---	---	---
General economic indicators						
Consumers' per capita income and expenditures: 4/						
Disposable personal income	Dol.	2,060	2,055	2,085	2,094	2,116
Expenditures for goods and services	Dol.	1,905	1,895	1,933	1,951	1,958
Expenditures for food	Dol.	394	394	396	398	---
Expenditures for food as percentage of disposable income	Pct.	19.1	19.2	19.0	19.0	---

		1962		1963		
		Year	June	Apr.	May	June
5/						
Hourly earnings, production workers, manufacturing	Dol.	2.39	2.39	2.45	2.45	2.46
Hourly earnings of food marketing employees 6/	Dol.	2.10	2.10	2.17	2.18	---
Retail sales: 7/						
Food stores	Mil. dol.	4,801	4,722	4,846	4,857	4,937
Apparel stores	Mil. dol.	1,195	1,114	1,170	1,168	1,170
Manufacturers' inventories: 7/						
Food and beverage	Bil. dol.	5.40	5.40	5.37	5.36	5.45
Textile	Bil. dol.	2.87	2.83	2.86	2.86	2.87
Tobacco	Bil. dol.	2.14	2.18	2.17	2.17	2.17
Indexes of industrial production: 8/						
Food and beverage manufactures	1957-59=100	114	113	115	115	---
Textile mill products	1957-59=100	115	117	116	117	---
Apparel products	1957-59=100	119	119	123	123	---
Tobacco products	1957-59=100	112	108	113	---	---
Index of physical volume of farm marketings	1947-49=100	136	110	104	112	108
Price indexes						
Consumer price index 5/	1957-59=100	105.4	105.3	106.2	106.2	106.6
Wholesale prices of food 5/	1957-59=100	100.6	98.9	93.7	100.7	100.9
Wholesale prices of cotton products 5/	1957-59=100	101.7	102.0	100.1	99.7	99.7
Wholesale prices of woolen products 5/	1957-59=100	99.1	99.1	100.8	100.6	100.6
Prices received by farmers 9/	1957-59=100	100	99	100	99	100
Prices paid by farmers, interest, taxes, and wage rates 9/	1957-59=100	105	105	106	106	106

1/ Average quantities of farm food products purchased per wage-earner or clerical-worker family in 1952. 2/ Data for average family purchases in 1950 of 25 articles of cotton clothing and housefurnishings divided by number of pounds of lint cotton required for their manufacture; see U. S. Dept. Agr. Mktg. Res. Rpt. 277. 3/ Data for package of regular-sized, popular brand cigarettes; farm value is return to farmer for 0.065 lb. of leaf tobacco of cigarette-types; data for year ended June 30, 1963. 4/ Seasonally adjusted annual rates, calculated from Dept. of Commerce revised data. Second quarter 1963 data are from preliminary estimates by the Council of Economic Advisers. 5/ Dept. Labor. 6/ Weighted composite earnings in food processing, wholesale trade, retail food stores, calculated from data of Dept. Labor. 7/ Seasonally adjusted, Dept. Commerce. Sales data for 1962 are averages of monthly totals (unadjusted). Inventory data for 1962 are book values at end of year (adjusted). 8/ Seasonally adjusted, Board of Governors of Federal Reserve System. 9/ Converted from 1910-14 base.

THE MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board August 2, 1963

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SUMMARY

Charges for marketing farm-originated food products averaged about the same in the second quarter this year as in the preceding quarter. A decrease in marketing charges for meat products was offset by a rise for fresh fruits and processed fruits and vegetables.

Marketing charges in the second quarter, however, averaged 3 percent higher than in the same period of 1962. Marketing charges were up mainly because (1) retail prices of beef did not decline as rapidly as farmers' prices of cattle, (2) retail prices of frozen orange juice concentrate and canned single-strength orange juice rose more rapidly after the freeze in Florida than prices growers received for oranges, and (3) marketing charges for bakery and cereal products rose significantly during the year.

Prices farmers received for food products in the second quarter averaged 3 percent lower than in January-March, mainly because of decreases in farm prices of beef cattle, milk for fluid use, and eggs. The second-quarter average this year also was 3 percent lower than a year earlier and resulted largely from lower prices for beef cattle, hogs, and fresh vegetables.

Retail prices of farm food products averaged about 1 percent lower in April-June than in the preceding 3 months and 1 percent higher than in the second quarter of 1962. Prices of beef, pork, fresh vegetables, and some other foods were down, but were about offset by higher prices mainly for fresh fruits and orange products.

Farmers received 36 cents of the consumer dollar spent for farm-originated food products in retail food stores in the second quarter this year, the lowest quarterly average share recorded in more than 20 years. Farmers received 37 cents in the previous quarter, and 38 cents in April-June 1962.

Highlights of Special Articles

Consumer expenditures for food in the first quarter this year averaged $398 per person (seasonally adjusted annual rate), about the same as in the preceding quarter but 2 percent higher than in the first quarter of 1962. Per capita expenditures for food increased by about the same percentage as per capita disposable income. Over a longer period, however, expenditures for food have not risen as much as income, so the percentage spent for food declined to 19.1 percent in 1962 from 19.5 percent in 1961 and 23.4 percent in 1952. The percentage spent for clothing and shoes declined slightly in 1962 from 1952 while the percentage spent for tobacco remained about constant. (Consumer Income and Expenditures for Food, p. 13.)

The bill for marketing domestic farm-originated food products to civilian consumers in this country climbed to $42.9 billion in 1962. This increase of 3 percent from 1961 to 1962 was smaller than average for the last 10 years and resulted mainly from growth in the volume of product handled. The marketing bill has increased every year since 1950. Consumers spent $64.3 billion for these food products in 1962, and farmers received a record $21.4 billion for the equivalent farm products, 2 percent more than in the previous year. The labor cost component of the marketing bill climbed 4 percent from 1961 to 1962, reflecting an increase in unit labor costs as well as in the volume of products handled. Corporate profits before taxes were up 5 percent but after-tax profits totaled the same as in 1961. Other costs and noncorporate profits (as a group) increased about 2 percent. (The Farm-Food Marketing Bill, p. 16.)

The estimated cost of pension plans and other fringe benefits to U. S. corporations manufacturing, wholesaling, and retailing food products totaled about $475 million in 1960 -- more than double that in 1954. During the same period total wages and salaries in these industries increased a third. Fringe benefits other than pension plans increased faster than wages and salaries in these industries. Payments to pension plans accounted for about 56 percent of the total fringe-benefit costs in 1960. Both management and union officials seem likely to favor increases in fringe benefits over wage raises. (Fringe Benefit Costs in the Food Industries, p. 22.)

Freeze-drying -- a new method of preserving food -- involves placing frozen food in a vacuum cabinet where its moisture content is reduced to about 2 percent. The final product is a dried, not a frozen food. Freeze-drying generally produces foods that taste better than those dehydrated by conventional means. Further, freeze-dried foods are lightweight, may be stored and transported without refrigeration, and have a long shelf life. But processing and packaging costs are high. The volume of freeze-dried foods is small but growing rapidly. Foods that freeze well generally are suitable for freeze-drying. The U. S. Armed Forces are the largest purchasers. Freeze-dried foods likely to increase most in volume are those used in mixes, such as soups, stews, prepared meals, and dairy dips. Further cost reductions likely will be achieved and quality improved. (Freeze-Drying of Foods -- A Look Into the Future, p. 26.)

The farm value of medium-size turkeys (payment received by producers for quantity of live turkey equivalent to 1 pound of ready-to-cook turkey) in 5 major cities averaged 29.6 cents in October-December last year, 7.5 cents more than in the like period of 1961. The farm-retail spread decreased 4.7 cents as the retail price increased less than the farm value. Decreases of 2.4 cents occurred in the spread between prices paid and received in retail stores and in the spread between the farm value and the city-receiver price. But the spread between the city-receiver price and that paid by the retailer increased slightly. The number of turkeys raised in this country was 15 percent smaller in 1962 than in 1961, and storage

stocks were reduced below year-earlier volume before October-December. (Marketing Spreads for Turkeys in Selected Cities, p. 33.)

Cost information provided by large meatpackers in the Cornbelt, the South, and Plains States shows that slaughtering, shipping and delivery services comprised 7 percent of the composite retail price of fresh beef last fall and winter. During this period the farmers' share of the retail price averaged about 60 percent. Meatpacker costs per 100 pounds dressed carcass beef in the first quarter this year averaged about $1.50 for labor, 19 cents for grading services, royalties, and packaging materials; 38 cents for buying and selling, and $1.03 for fixed overhead. For reporting packers, the spread between cost for live cattle and returns from carcass beef and byproducts declined last winter along with falling prices for live cattle. (Meatpackers' Recent Costs and Spreads for Beef, p. 36.)

Rise in Marketing Charges Moderates

Unit charges for marketing farm-originated food products changed little in the second quarter from March, after rising sharply in the first 2 months this year (table 1). The spread between the retail cost and farm value of the farm-food "market basket" averaged $682 (annual rate) in the second quarter compared with $680 in the first quarter. 1/ The farm-retail spread for the meat-products group was down 6 percent from the first quarter. But the effect on the market-basket total was about offset by increases for fresh fruits and processed fruits and vegetables. Changes for other product groups were relatively small.

The farm-retail spread for the market basket in the second quarter this year was nearly 3 percent higher than in the same period of 1962 (table 2). Although the spread for the meat-products group decreased considerably in the second quarter, it remained more than 5 percent higher than in the second quarter of 1962 because of a big increase in the spread for beef in the first quarter this year. Increases in the second quarter from a year earlier for fresh fruits and processed fruits and vegetables caused an increase of 5 percent in the spread for the fruits and vegetables group. Spreads for most other product groups were higher than in the second quarter last year. Only the fats and oils group showed a significant decline.

Farm Value Decreases

The farm value of foods in the market basket dropped to an average annual rate of $389 in the second quarter this year, about 3 percent below January-March and the second quarter of 1962. Most of the downturn from the previous quarter resulted from decreases in farmers' prices for beef cattle, milk for fluid use, and eggs (table 19, p.40). Decreases in prices of cattle, hogs, and fresh vegetables accounted for most of the drop from the second quarter a year earlier.

Little Change in Retail Cost

The retail cost of farm foods in the market basket averaged $1,071 (annual rate) in the second quarter, about 1 percent less than the average for the previous quarter and 1 percent more than for April-June 1962. Prices of meat and some other foods were down from the preceding quarter but were offset by increases, mainly for some fresh fruits, processed fruits and vegetables, and sugar. Beef, pork, and fresh vegetables were lower than in the second quarter last year, but fresh fruits, processed orange products, eggs, and bakery and cereal products were higher.

Farmer's Share Decreases to 36 Cents

Farmers received an average of 36 cents

1/ The "market basket" contains the average quantities of domestic farm-originated food products purchased per family in 1952 for consumption at home by urban wage-earner and clerical-worker families. Additional information concerning contents of the market basket and methods of estimating market-basket data is in Farm-Retail Spreads for Food Products, USDA Misc. Pub. 741, Nov. 1957. Since the market basket does not contain imported foods, fishery products, or the cost of meals in eating places, its retail cost is less than the cost of all foods bought per family. The farm value is the return to farmers for the farm products equivalent to the foods in the market basket. The farm-retail spread is the difference between the retail cost and farm value. It is an estimate of the charges made by marketing firms for assembling, processing, transporting, and distributing the products in the market basket.

Table 1.--The farm food market basket: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, 1952-63 1/

Year and month	Retail cost 2/	Farm value 3/	Farm-retail spread	Farmer's share
	Dollars	Dollars	Dollars	Percent
1952	1,034	482	552	47
1953	1,003	445	558	44
1954	986	421	565	43
1955	969	395	574	41
1956	972	390	582	40
1957	1,007	401	606	40
1958	1,064	430	634	40
1959	1,040	398	642	38
1957-59 average	1,037	410	627	40
1960	1,053	407	646	39
1961	1,060	406	654	38
1962 4/	1,067	410	657	38
1962				
January	1,056	411	645	39
February	1,066	416	650	39
March	1,064	413	651	39
April	1,067	407	660	38
May	1,063	398	665	37
June	1,067	398	669	37
July	1,068	400	668	37
August	1,068	412	656	39
September	1,085	424	661	39
October	1,075	411	664	38
November	1,069	411	658	38
December	1,062	406	656	38
1963				
January	1,078	408	670	38
February	1,084	399	685	37
March	1,079	393	686	36
April	1,071	391	680	37
May	1,069	385	684	36
June	1,071	389	682	36

1/ The farmer's share and index numbers of the retail cost, farm value, and farm-retail spread for the years 1913-61 (1957-59=100) are published in the February 1962 Marketing and Transportation Situation (MTS-144) p. 50.

2/ Retail cost of average quantities purchased per family in 1952 by urban wage-earner and clerical worker families, calculated from retail prices collected by the Bur. Labor Statistics.

3/ Payment to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

4/ Preliminary estimates.

Current data are given in the Statistical Summary, a monthly publication of the Statistical Reporting Service

Table 2.--The market basket of farm foods: Retail cost, farm value, farm-retail spread, April-June 1963 and April-June 1962.

Item	Apr.-June 1963	Apr.-June 1962	Change: Apr.-June 1963 from Apr.-June 1962	
			Actual	Percentage
	Dollars	Dollars	Dollars	Percent
	Retail cost			
Market basket	1,071.39	1,065.82	5.57	1
Meat products	271.18	277.99	-6.81	-2
Dairy products	197.72	198.40	-.68	1/
Poultry and eggs	82.42	80.54	1.88	2
Bakery and cereal products	172.87	169.97	2.90	2
All fruits and vegetables	258.64	250.21	8.43	3
Fats and oils	42.05	43.80	-1.75	-4
Miscellaneous products	46.51	44.91	1.60	4
	Farm value			
Market basket	389.40	400.97	-11.57	-3
Meat products	129.54	142.90	-13.36	-9
Dairy products	84.90	85.14	-.24	1/
Poultry and eggs	48.19	46.90	1.29	3
Bakery and cereal products	31.62	31.48	.14	1/
All fruits and vegetables	75.75	75.30	.45	1
Fats and oils	11.51	11.80	-.29	-2
Miscellaneous products	7.89	7.45	.44	6
	Farm-retail spread			
Market basket	681.99	664.85	17.14	3
Meat products	141.64	135.09	6.55	5
Dairy products	112.82	113.26	-.44	1/
Poultry and eggs	34.23	33.64	.59	2
Bakery and cereal products	141.25	138.49	2.76	2
All fruits and vegetables	182.89	174.91	7.98	5
Fats and oils	30.54	32.00	-1.46	-5
Miscellaneous products	38.62	37.46	1.16	3
	Farmer's share of retail cost			
	Percent	Percent	Percentage point	
Market basket	36	38	-2	
Meat products	48	51	-3	
Dairy products	43	43	0	
Poultry and eggs	58	58	0	
Bakery and cereal products	18	19	-1	
All fruits and vegetables	29	30	-1	
Fats and oils	27	27	0	
Miscellaneous products	17	17	0	

1/ Less than 0.5 percent.

of the consumer dollar spent on farm foods in retail food stores in the second quarter this year, compared with 37 cents in the previous quarter and 38 cents a year earlier. The farmer's share has not been this low for a quarter since the 1930's. The smallest annual average was 32 cents, recorded in 1932 and 1933. The largest quarterly average was 52 cents, received in the first and fourth quarters of 1947 and in the first and third quarters of 1948. The decline in the farmer's share since 1948 reflects both increases in the spread and decreases in the farm value.

Decreases in Marketing Spreads for Beef and Pork

Retail prices of Choice grade beef averaged 79.1 cents per pound in the second quarter this year, down 5.4 cents from the preceding quarter (table 3). The net farm value declined less, from 47.6 cents to 43.3 cents, so the spread decreased 1.1 cents to 35.8 cents. This decrease followed an increase of 6.6 cents from the final quarter last year to the first quarter this year when the net farm value decreased considerably more than the retail price.

The farm-retail spread for Choice beef in the second quarter this year was 14 percent (4.4 cents) larger than in the same quarter of 1962. Both the wholesale-retail and farm-wholesale segments of the spread were larger this year. The net farm value was down 5.8 cents compared with a decrease of 1.4 cents in the retail price. Slaughter of steers and heifers in the second quarter totaled about 8 percent larger than in the same quarter last year.

After declining since the third quarter of 1962, prices received by farmers for hogs strengthened in the second quarter, causing a slight increase in the farm value of pork (table 3). The retail price, however, continued to fall. This divergent movement reduced the spread by 10 percent. The spread in the second quarter this year was about 4 percent smaller than a year earlier. The volume of hogs slaughtered declined seasonally in April and May, and in June it was smaller than a year earlier.

Fresh-Fruits--Prices and Marketing Spreads Increased

Marketing spreads, farm values, and retail prices of apples, grapefruit, and oranges increased substantially from the first to the second quarter (table 20, p. 41). Part of this increase was seasonal. For lemons, however, the farm value, retail price, and marketing spread were down sharply.

Farm values of grapefruit, lemons, and oranges were sharply higher in the second quarter this year than in the like period of 1962, but there was little change for apples (table 19, p. 40). Marketing spreads were wider in the second quarter than a year earlier for apples, grapefruit, and lemons, but were unchanged for oranges.

Rise in Retail Prices of Orange Products Continues

The retail price of frozen orange juice concentrate rose in each of the first 6 months this year, reflecting the sharply-reduced supply caused by the December freeze in Florida. The second quarter average was 46 percent higher than in the like quarter last year. (See tabulation below). Prices growers received for oranges used in frozen concentrate in the April-June period were more than double those received a year earlier, but the farm value of frozen concentrate in the second quarter was only 6 percent higher.

Frozen Concentrated Orange Juice (6 ounces)

	Retail price	Farm value	Farm-retail spread
	Cents	Cents	Cents
1962			
Apr.-June	20.7	8.2	12.5
1963			
Jan.-Mar.	26.2	6.9	19.3
Apr.-June	30.3	8.7	21.6

Table 3.--Beef, pork, and lamb: Retail price, wholesale value, farm value, farm-retail spread, and farmer's share of retail price by quarters, 1962-63

Date	Retail price per pound 1/	Wholesale value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share
						Total	Wholesale-retail	Farm-wholesale	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
	Beef, (Choice grade) 6/								
1962									
Jan.-Mar.	80.6	59.8	54.7	4.5	50.2	30.4	20.8	9.6	62
Apr.-June	80.5	59.4	53.9	4.8	49.1	31.4	21.1	10.3	61
July-Sept.	83.0	62.0	57.4	4.8	52.6	30.4	21.0	9.4	63
Oct.-Dec.	85.6	63.7	60.2	4.9	55.3	30.3	21.9	8.4	65
1963									
Jan.-Mar.	84.5	58.2	51.7	4.1	47.6	36.9	26.3	10.6	56
Apr.-June	79.1	54.6	47.2	3.9	43.3	35.8	24.5	11.3	55
July-Sept.									
Oct.-Dec.									
	Pork, (retail cuts) 6/								
1962									
Jan.-Mar.	57.9	41.8	35.3	4.7	30.6	27.3	16.1	11.2	53
Apr.-June	57.8	40.9	33.9	4.3	29.6	28.2	16.9	11.3	51
July-Sept.	62.2	45.6	38.8	4.7	34.1	28.1	16.6	11.5	55
Oct.-Dec.	60.0	42.7	35.3	4.2	31.1	28.9	17.3	11.6	52
1963									
Jan.-Mar.	57.7	39.2	31.8	4.2	27.6	30.1	18.5	11.6	48
Apr.-June	55.5	39.0	32.2	3.9	28.3	27.2	16.5	10.7	51
July-Sept.									
Oct.-Dec.									
	Lamb, (Choice grade) 6/								
1962									
Jan.-Mar.	68.6	42.8	39.3	7.1	32.2	36.4	25.8	10.6	47
Apr.-June	69.8	48.2	41.9	6.5	35.4	34.4	21.6	12.8	51
July-Sept.	72.6	52.0	44.1	5.8	38.3	34.3	20.6	13.7	53
Oct.-Dec.	71.9	47.5	42.4	6.5	35.9	36.0	24.4	11.6	50
1963									
Jan.-Mar.	72.2	44.7	43.0	7.0	36.0	36.2	27.5	8.7	50
Apr.-June	73.0	50.3	45.1	6.1	39.0	34.0	22.7	11.3	53
July-Sept.									
Oct.-Dec.									

1/ Estimated weighted average price of retail cuts.
2/ Wholesale value of quantity of carcass equivalent to 1 lb. of retail cuts: Beef, 1.35 lb.; pork, 1.00 lb.; lamb, 1.11 lb.
3/ Payment to farmer for quantity of live animal equivalent to 1 lb. of retail cuts: Beef, 2.25 lb.; pork, 2.13 lb.; lamb, quantity varies by months from 2.28 lb. in June to 2.42 lb. in March.
4/ Portion of gross farm value attributed to edible and inedible byproduct.
5/ Gross farm value minus byproduct allowance.
6/ Gross and net farm values, farm-retail spread, and farm-wholesale spread have been revised. Byproduct adjustments for beef have been revised for most quarters.

Data for earlier years were published in the Marketing and Transportation Situation, May 1962, (MTS-145).

Canned Orange Juice (46 ounces)

	Retail price	Farm value	Farm-retail spread
	Cents	Cents	Cents
1962			
Apr.-June	42.7	13.1	29.6
1963			
Jan.-Mar.	46.4	8.2	38.2
Apr.-June	52.3	8.3	44.0

The farm value in the second quarter was based on the average price of all Florida oranges from the 1962-63 crop used to date for frozen concentrate. Thus, the farm value was affected by relatively low prices received earlier in the season. Until mid-January grower prices were about the same or lower than a year earlier. About two-fifths of the 1962-63 pack had been processed by mid-January. The farm-retail spread was 73 percent wider in the second quarter this year than a year earlier. At 21.6 cents per 6-ounce can, the spread in April-June was 7 percent wider than the previous record quarterly average in the fourth quarter of 1958.

Retail prices of canned orange juice also increased in each of the first 6 months of 1963, but the percentage rise from the second quarter 1962 to the same quarter this year was only about half as large for canned orange juice as for frozen concentrate. Prices growers received for oranges used for canned juice increased sharply, but much of the 1962-63 pack was processed in the first half of January when prices were lower than those received a year earlier. Freeze-damaged fruit was sent to canneries and freezers. The farm value of canned orange juice in the second quarter, which was based on the average price of oranges processed to date, was 37 percent lower than in the same period last year. The April-June farm-retail spread was 49 percent wider than a year earlier and 23 percent wider than the previous record spread in the fourth quarter of 1958.

Rise in Sugar Prices

Although the retail price of sugar increased to 69.2 cents per 5 pounds in the second quarter, 9.9 cents (17 percent) more than in January-March, it had little effect on the retail cost of the market basket, since sugar (not including that in bakery and other products) accounted for less than 1 percent of this retail cost. Wholesale prices weakened in June, and observations in some markets clearly indicated that retail prices started to decline before the end of the month and continued to decline in July.

Prices growers received for sugar beets depend largely on net returns from sales of sugar by processors of beets. The sharp rise in the wholesale prices of sugar last spring boosted returns to growers. Estimates by the Statistical Reporting Service, USDA, of the average price received by growers for the 1962 crop were revised upward in June, reflecting the rise in wholesale prices. Since all the sugar from a crop may not be sold for a year or more, the season average price cannot be finally calculated until the end of the marketing year. The farm value of sugar in the first 9 months of the calendar year is based on the average price received for the sugar beet crop harvested in the preceding year. 2/ Based on the most recent estimate of the average price for last year's crop, the farm value of 5 pounds of sugar was 24.1 cents.

Since the retail price increased in the second quarter, the farm-retail spread increased from 35.2 cents in the first quarter to 45.1 cents in the second. (The farm value does not include Government payments to producers; the spread includes the Government processor tax.)

2/ The farm value in October, November, and December is based on a weighted average of prices received for crops harvested in the preceding and current years.

Compared with the year earlier, the retail price in the second quarter was up 10.9 cents per 5 pounds, the farm value was up 3.1 cents, and the spread was 7.8 cents wider.

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Per capita disposable income has continued to increase in 1963, rising to a seasonally adjusted annual rate of $2,116 in the second quarter (table 4). The second quarter average was 1 percent higher than in the preceding quarter and 3 percent higher than in April-June 1962. Disposable income per person in terms of 1962 prices also increased. It averaged 1 percent higher in the quarter just ended than in the first quarter this year and 2 percent higher than a year earlier.

Per capita expenditures (seasonally adjusted) for all goods and services were about the same in the first and second quarters this year. From the second quarter last year to the like period this year, consumer expenditures rose by a little larger percentage than disposable income. Personal savings -- the difference between disposable income and consumption expenditures -- decreased to 7.5 percent of disposable income, down from 7.8 percent in the second quarter last year.

Per capita expenditures (seasonally adjusted) for durable goods in the second quarter this year averaged 5 percent higher than a year earlier. During the same period per capita expenditures increased 2 percent for nondurable goods and 4 percent for services. Each type of expenditure was about the same in the quarter just ended as in the previous quarter.

Expenditures for Food

Expenditures for food in the first quarter this year (the latest quarter for which data are available) rose to a seasonally adjusted rate of $398 per person, about the same as in the preceding 3 months but 2 percent higher than in January-March 1962. Price increases accounted for much of this rise. Consumers spent 19.0 percent of their disposable income for food in the first quarter, about the same proportion as in each quarter of 1962.

They spent an average of $394 per person for food in 1962, up from $356 in 1952. This increase of 11 percent compared with an increase of about 6 percent in prices of food. Much of the rise in expenditures resulted from consumers substituting relatively expensive foods for cheaper foods and increased purchases of marketing services.

From 1952 through 1962, expenditures per person for food did not increase as much as per capita disposable income, which averaged 35 percent higher last year than in 1952. Thus, the percentage of income spent for food declined from 23 percent in 1952 to 19 percent last year. (See cover chart.) The proportion spent for food declined in all but 2 years from 1952 to 1962.

Consumer expenditures for goods other than food and for services totaled $1,511 per person in 1962, up 45 percent from the 1952 average (table 4). Thus, these expenditures increased considerably more than disposable income -- unlike those for food -- and their proportion of disposable income increased to 73 percent in 1962 from 69 percent in 1952. Prices of these goods and services rose 17 percent, so price increases accounted for less than half of the rise in per capita expenditures.

Expenditures for clothing and shoes, made in part from farm-originated raw materials, averaged $160 per person last year, up about 3 percent from 1961 and 14 percent above the 1952 average. These expenditures accounted for close to 8 percent of disposable income in recent years compared with slightly more than 9 percent in the early 1950's. Consumers spent $42 per person for tobacco in 1962, about the same as in 1961 and 27 percent more than in 1952. These expenditures took about 2 percent of disposable income each year from 1952 to 1962.

Table 4.--Per capita income and expenditures for food and other goods and services, United States, average 1947-49, annual 1950-62, quarters 1962-63

Year	Disposable personal income	Personal consumption expenditures			
		Food		Other goods and services	
		Actual	Percentage of disposable income	Actual	Percentage of disposable income
	Dollars	Dollars	Percent	Dollars	Percent
1947-49 average	1,248	319	25.6	874	70.0
1950	1,369	312	22.8	974	71.1
1951	1,475	346	23.5	1,014	68.7
1952	1,521	356	23.4	1,044	68.6
1953	1,582	355	22.4	1,103	69.7
1954	1,582	355	22.4	1,111	70.2
1955	1,660	358	21.6	1,196	72.0
1956	1,741	370	21.3	1,234	70.9
1957	1,803	381	21.1	1,284	71.2
1958	1,825	387	21.2	1,297	71.1
1959	1,904	385	20.2	1,385	72.7
1960	1,937	386	19.9	1,431	73.9
1961	1,983	386	19.5	1,447	73.0
1962	2,060	394	19.1	1,511	73.3
	Annual rates, seasonally adjusted 1/				
1962					
Jan.-Mar.	2,033	389	19.1	1,490	73.3
Apr.-June	2,055	394	19.2	1,501	73.0
July-Sept.	2,067	397	19.2	1,511	73.1
Oct.-Dec.	2,085	396	19.0	1,537	73.7
1963					
Jan.-Mar.	2,094	398	19.0	1,553	74.2
Apr.-June 2/	2,116				
July-Sept.					
Oct.-Dec.					

1/ Quarterly estimates of expenditures for food not including alcoholic beverages have been made by the Economic Research Service from the Department of Commerce estimates of expenditures for food and alcoholic beverages.

2/ Preliminary estimate by Council of Economic Advisers.

Compiled from estimates published by the National Income Division, U. S. Department of Commerce. Data for Alaska and Hawaii included beginning 1960.

Food Expenditures Measurements Compared

The expenditures for food per person published in table 4 were derived from estimates of total personal expenditures for food made by the National Income Division of the U. S. Department of Commerce. Their estimates include the following:

1. Foods purchased for off-premise consumption, mainly from retail food stores.

2. Meals purchased in restaurants and other eating places.

3. Food furnished commercial and Government employees, including members of the armed forces. This food is valued in terms of wholesale prices.

4. Food consumed on farms where produced, which is valued in terms of prices farmers receive for these products.

Estimates of personal expenditures for food are made to estimate the gross national product. Costs of some foods furnished consumers are included in sectors of the gross national product other than personal food expenditures. Thus, personal expenditures for food do not include costs of the following:

1. Food costs included in other charges; for example, costs of meals served airline passengers are included in prices of airline tickets and costs of meals served patients in hospitals are in hospital charges.

2. Food distributed free by Government agencies and foods served inmates of Government-operated institutions. These costs are included in Government purchases of goods and services.

3. Meals charged as a business expense, such as meals purchased by business firms for clients.

Estimates of personal expenditures for food, made by the Department of Commerce, are larger than the estimates of civilian expenditures for farm foods made by the Economic Research Service and presented in the following article as a part of the farm food marketing-bill statistics (table 5). Estimates of civilian expenditures for farm foods include costs of all U. S. farm-originated food products that are sold by farmers and consumed by the domestic civilian population. Thus, they include the items listed above that are excluded from estimates of personal expenditures for food but included in other sector accounts. Personal expenditures for food are larger mainly because they include food costs that are excluded from civilian expenditures for farm foods. These excluded items are: (1) Imported foods and seafoods, (2) foods consumed on farms where produced, (3) foods furnished members of the armed forces, and (4) food consumption in Alaska and Hawaii, which is not included because of inadequate data.

Disposable Income

The per capita disposable income data in table 4 are derived from estimates of personal disposable income made by the National Income Division of the U. S. Department of Commerce. Personal income includes income received currently by individuals, unincorporated businesses, and nonprofit institutions (including pension, trust, and welfare funds). It does not include capital gains. Personal disposable income is personal income less personal taxes and nontax payments. Most of this income consists of money receipts; however, income received in kind and partly in kind also is included. Among the principal types of income in kind are food furnished employees, including members of the armed forces; net rent of owner-occupied dwellings; and food and fuel consumed on farms where produced. In 1962, personal income received in kind and partially in kind totaled $15.2 billion and made up about 3 percent of total personal income.

THE FARM-FOOD MARKETING BILL 1/

The bill for marketing domestic farm-originated food products to civilian consumers in this country totaled $42.9 billion in 1962, an increase of about 3 percent over 1961 and less than the average annual rise during the past 10 years (table 5). 2/ Volume of food handled increased by a smaller proportion. Unit marketing charges increased slightly from 1961 to 1962.

The marketing bill has increased every year since 1950 when it was the same as in the preceding year. From 1952 to 1962 it rose about 52 percent. During the same period, volume handled increased by 30 percent; and unit marketing charges went up 17 percent.

The total farm value rose 2 percent in 1962 from 1961, the same as the average annual increase of the last 5 years. The farm value, however, did not rise each year during this 5 years; low farm prices caused a drop in 1959.

Civilian consumers spent $64.3 billion in 1962 for these food products, over $1 billion more than in the year before. Retail food store prices increased less than 1 percent, but prices of food eaten away from home were up 3 percent. The marketing bill accounted for about two-thirds of civilian expenditures for farm foods in each year of 1957-62.

Components of the Marketing Bill

Direct labor costs for marketing domestic farm-originated foods to civilian consumers constituted almost half of the total marketing bill (table 6). They amounted to $19.4 billion in 1962, up 4 percent from 1961, and 15 percent above the 1957-59 average. Both the volume of products marketed and labor cost per unit of product were up about 2 percent over 1961, accounting for the increase in total labor cost. The labor cost component includes waiters' tips and the imputed costs of labor performed by proprietors and family workers not receiving stated wages or salaries. It also includes supplements to wages and salaries, such as payments by employers to social insurance funds, private pension and welfare funds, compensation for injuries, and other "fringe benefits."

Workers' hourly earnings in 1962 were up almost 4 percent from 1961, and 16 percent from the 1957-59 average (table 7). Unit labor costs rose less, because output per man-hour continued to increase.

A tentative estimate of $4.3 billion has been made for the 1962 transportation component. This estimate is 10 percent greater than the 1957-59 average.

Corporate Profits.--Corporate food marketing firms' profits before taxes increased from $2.0 billion in 1961 to $2.1

1/ Prepared by Jeannette Findlay, agricultural economist, Marketing Economics Division, Economic Research Service, USDA. A more extensive discussion was published in the August 1962 issue of this Situation (MTS-146), pp. 10-19. Reprints of "The Marketing Bill for Farm Food Products," ERS-20, (1962) are available from the Division of Information, Office of Management Services, USDA.

2/ This marketing bill is the difference between the total expenditures by civilian consumers for domestic farm food products and the farm value or payment that farmers received for the equivalent farm products. It is an estimate of the total charges for transporting, processing, wholesaling, and retailing farm foods. Foods sold in the form of meals in restaurants and other eating places and those sold at less than retail prices are valued at the point of sale. Estimates do not include the value of food products not produced on farms in the United States, foods consumed on farms where produced, or foods not sold to civilian consumers in this country. Estimates of the marketing bill and related statistics exclude Alaska and Hawaii because of inadequate data.

Table 5.--The total marketing bill, farm value, and consumer expenditures for domestic farm food products bought by civilians, United States, 1929-62

Year	Total marketing bill 1/	Farm value	Civilian expenditures for farm foods	Year	Total marketing bill 1/	Farm value	Civilian expenditures for farm foods
	Billion dollars	Billion dollars	Billion dollars		Billion dollars	Billion dollars	Billion dollars
1929	9.7	7.2	16.9	1947-49 av.	22.5	18.3	40.8
1930	9.9	6.4	16.3				
1931	8.6	4.7	13.3	1950	23.9	17.6	41.5
1932	7.5	3.4	10.9	1951	26.4	20.0	46.4
1933	7.3	3.6	10.9	1952	28.3	19.8	48.1
1934	7.5	4.3	12.1	1953	29.2	19.1	48.3
1935	7.3	5.0	12.6	1954	30.0	18.4	48.4
1936	8.2	5.8	14.0	1955	32.0	18.3	50.3
1937	8.1	6.0	14.1	1956	33.7	18.7	52.4
1938	8.4	5.2	13.6	1957	35.2	19.5	54.7
1939	8.6	5.2	13.8	1958	36.8	20.8	57.6
				1959	39.2	20.0	59.2
1940	9.1	5.6	14.7				
1941	9.9	7.1	17.0	1957-59 av.	37.1	20.1	57.2
1942	11.7	9.3	21.0				
1943	12.6	11.4	23.8				
1944	13.3	11.6	24.4	1960	40.5	20.7	61.2
1945	14.9	12.6	26.8	1961	41.8	20.9	62.7
1946	18.3	15.7	33.5	1962 2/	42.9	21.4	64.3
1947	20.7	18.7	39.4				
1948	22.9	19.3	42.2				
1949	23.9	16.9	40.8				

1/ Difference between civilian expenditures and farm value except that Federal processor taxes have been deducted for 1933-35 and allowances for Federal Government payments to processors have been added for 1943-46. Data for 1961 have been revised.
2/ Preliminary.

Estimates in this table do not cover Alaska and Hawaii because of inadequate data.

billion in 1962 (table 6). Before-tax profits increased 50 percent from 1952 to 1962. This paralleled the increase in the total marketing bill, so profits represented about 5 percent of the total in both 1952 and 1962. Year-to-year changes, however, were somewhat erratic. There were increases in 5 years, no change in 4 years, and a decline in 1 year.

In 1962, after-tax profits represented 48 percent of profits before taxes. The only period after 1941 when profits after taxes were more than half of profits before taxes was 1946-50. Profits after taxes increased about 67 percent from 1952 to 1962.

Profits of manufacturers, the largest component of total corporate profits before taxes, accounted for more than 60 percent. Retailers contributed the next largest share, and wholesalers the smallest share.

Table 6.--Labor, transportation, corporate profits, and other costs for marketing farm food products, United States, 1939-62 1/

Year	Labor 2/	Rail and truck transportation 3/	Corporate profits 4/		Other 5/	Total marketing bill
			Before income taxes	After income taxes		
	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars	Billion dollars
1939	4.2	1.0	0.3	0.3	3.1	8.6
1940	4.5	1.1	.4	.3	3.1	9.1
1941	4.9	1.2	.6	.4	3.2	9.9
1942	5.3	1.0	.8	.4	4.6	11.7
1943	5.4	1.0	1.1	.5	5.1	12.6
1944	6.0	1.1	1.1	.5	5.1	13.3
1945	6.6	1.3	1.1	.5	5.9	14.9
1946	8.3	1.6	1.7	1.1	6.7	18.3
1947	9.7	2.0	1.5	1.0	7.5	20.7
1948	10.8	2.2	1.3	.8	8.6	22.9
1949	11.3	2.3	1.3	.7	9.0	23.9
1950	11.8	2.6	1.6	.9	7.9	23.9
1951	12.5	2.6	1.3	.6	10.0	26.4
1952	13.3	3.0	1.4	.6	10.6	28.3
1953	14.1	3.2	1.5	.7	10.4	29.2
1954	14.8	3.3	1.5	.7	10.4	30.0
1955	15.1	3.2	1.8	.9	11.9	32.0
1956	15.8	3.5	1.9	.9	12.5	33.7
1957	16.3	3.6	1.9	.9	13.4	35.2
1958	16.7	3.9	1.9	.9	14.3	36.8
1959	17.4	4.1	2.1	1.0	15.6	39.2
1957-59 av.	16.8	3.9	2.0	.9	14.4	37.1
1960	18.2	4.1	2.0	.9	16.2	40.5
1961	18.7	4.3	2.0	1.0	16.8	41.8
1962 6/	19.4	4.3	2.1	1.0	17.1	42.9

1/ For domestic farm foods bought by civilian consumers in this country.
2/ Does not include the cost of labor employed in intercity for-hire transportation.
3/ Includes charges for the protective services, heating and refrigeration; does not include local hauling; charges for intercity transportation by water and air are a part of the "other" or residual component of the marketing bill.
4/ Does not include profits of unincorporated firms or firms engaged in intercity transportation.
5/ Residual component; includes other costs such as fuel, electric power, containers, packaging materials, air and water transportation, interest on borrowed capital, taxes other than those on income, and noncorporate profits.
6/ Preliminary.

Table 7.--Average hourly earnings and labor costs and profits per unit of product for marketing farm food products, United States, 1939-62 1/

(Index numbers 1957-59 = 100)

Year	Hourly earnings 2/	Unit labor cost 3/	Profit per unit of product 4/	
			Before taxes	After taxes
1939	28	41	29	48
1940	29	41	30	46
1941	31	44	46	60
1942	35	46	63	65
1943	37	48	82	76
1944	40	52	82	72
1945	43	55	77	72
1946	50	63	111	145
1947	57	73	97	129
1948	62	82	83	104
1949	65	84	81	101
1950	69	85	100	116
1951	73	91	84	81
1952	77	92	82	76
1953	82	95	88	84
1954	86	97	83	80
1955	88	95	98	100
1956	92	96	99	100
1957	97	98	98	96
1958	100	101	98	99
1959	103	101	104	105
1957-59 average	100	100	100	100
1960	108	103	99	95
1961	112	104	94	95
1962 5/	116	106	97	94

1/ For domestic farm-originated foods bought by civilian consumers in this country.

2/ Hourly earnings estimated by dividing total labor cost by total man-hours for all workers. These data include proprietors and family workers not receiving stated remuneration. They also include supplements to wages and salaries.

3/ Unit labor cost is the quotient of the indexes of total labor cost (table 6) and of volume of farm food products marketed to civilian consumers. The index of farm food products marketed was constructed by weighting the quantities sold by 1957-59 average retail prices.

4/ Profit per unit of product is the quotient of the index of total corporate profits from marketing farm foods produced and consumed in the United States and the index of the volume of farm food products marketed.

5/ Preliminary.

Corporate profits before taxes per unit of food marketed were 3 percent higher in 1962 than in 1961. These unit profits fluctuated much more than total corporate profits during 1952-62 (table 7). They were relatively low in 1952 and 1954 and reached a peak in 1959. In 1962 they were about 18 percent higher than in 1952, but about 3 percent lower than the 1957-59 average. Profits after taxes per unit of product were about 24 percent higher in 1962 than in 1952 and 6 percent lower than the 1957-59 average.

Other costs.--Other costs and noncorporate profits, the residual group in the marketing bill, totaled $17.1 billion in 1962, up from $16.8 billion in 1961. The total in 1962 was 19 percent higher than the 1957-59 average. This component includes advertising costs, depreciation, taxes other than Federal income taxes, costs of intercity transportation other than by rail and truck, rents, interest, costs of fuel, electric power, containers, packaging material, and many other goods and services.

It has been possible to estimate some of these other-cost items (table 8). 3/ These items totaled about $5.3 billion in 1961, or 158 percent above the 1947-49 average of $2.0 billion. The total of these items in 1961 was about 13 percent of the marketing bill and about 32 percent of the component including other costs

Table 8.--Costs of selected items and noncorporate profits in the food marketing bill, by type of food marketing firm, 1947-49 average and 1961 1/

Item	Processors		Wholesalers 2/		Retailers 3/		Total	
	Average 1947-49	1961	Average 1947-49	1961	Average 1947-49	1961	Average 1947-49	1961
	Mil. dol.	Mil. dol.	Mil. dol.	Mil. dol.	Mil. dol.	Mil. dol.	Mil. dol.	Mil. dol.
Advertising	310	860	42	100	107	299	459	1,259
Depreciation	225	669	43	131	126	413	394	1,213
Interest	45	122	14	34	14	56	73	212
Business taxes 4/	240	536	52	92	134	342	426	970
Rent	47	167	18	81	163	486	228	734
Repairs, contributions, bad debts	220	423	23	63	50	149	293	635
Profits (pre-tax) 5/	53	86	26	33	85	118	164	237
Total	1,140	2,863	218	534	679	1,863	2,037	5,260

1/ 1961 estimates are preliminary.
2/ Merchant wholesalers of groceries and related products.
3/ Includes retail food stores; does not include restaurants and other eating places.
4/ Includes property, social security, unemployment insurance, State income, and franchise taxes, license fees, etc., but does not include Federal income tax. Social security and unemployment insurance taxes also are included in the labor cost component as labor supplements.
5/ Profits are for noncorporate firms only; however, the estimates are based on the corporate concept of profits.

3/ The estimates shown in table 8 were prepared by William T. Wesson, agricultural economist, Marketing Economics Division, ERS.

and noncorporate profits. Advertising and depreciation were the largest items. In 1961 advertising amounted to about $1.3 billion and depreciation to about $1.2 billion.

Each cost item increased between 1947-49 and 1961. Rent increased 222 percent, reflecting greater use of rented equipment and to some extent rent increases. Depreciation increased by 208 percent as a result of growth in depreciable assets and higher depreciation allowances. Interest payments increased 190 percent, reflecting increased capital requirements and to some extent higher interest rates. Increases in other items were: Advertising, 174 percent; taxes, 128 percent; repairs, contributions, etc., 117 percent.

A table showing the farm-retail marketing bill, formerly included in the marketing-bill article, was not included this year, but will be furnished on request. The farm-retail marketing bill covers the same food products as the total marketing bill, but food products are valued in terms of retail food-store prices. Since it does not include the extra cost of food served in eating places, the farm-retail marketing bill is smaller than the total marketing bill. The farm value is the same in both sets of data. In recent years both marketing bills have risen at about the same rate. Farm-retail marketing-bill data (marketing bill, retail cost, and farm value) are available for 5 product groups: Meat products, dairy products, poultry and eggs, bakery and cereal products, and fruits and vegetables.

FRINGE BENEFIT COSTS IN THE FOOD INDUSTRY 1/

During World War II when direct wage increases were not allowed, the War Labor Relations Board permitted companies to augment wages by indirect means, which it termed "fringe benefits." Because of the tight labor market, employers quickly took this cue and devised ingenious methods to attract workers. Premium pay for overtime was no longer sufficient to draw workers. Today, fringe benefits are so substantial that "fringe" seems a misnomer. Internal Revenue Service data (table 9) show that the aggregate costs of pension plans and other fringe benefits reported by corporations manufacturing, wholesaling, and retailing food products was $474.7 million in 1960, about 114 percent more than in 1954. During the period the total bill for marketing farm-originated food products in the United States increased a third (table 5, p. 17). Fringe benefits seem destined to become an increasingly important part of the food marketing bill. Also, fringe benefits are one of the more inflexible costs of food marketing firms.

Estimates of fringe-benefit costs vary because they do not include identical components. Most estimates include contributions to pension plans, social security taxes, and paid vacations; a few do not. Items often classified as fringe benefits include payments for hospitalization and medical care, welfare fund contributions, free meals, and pay for time not worked (such as coffee breaks, rest periods, holidays, sick leave, National Guard and reserve duty, and voting time).

It was not until 1953 that the Internal Revenue Service required corporations to itemize fringe-benefit payments. For tax purposes, the IRS defines fringe benefits

Table 9.--Contributions to pension plans and other employee benefits, food marketing corporations, 1954-60

Year	Food and kindred products manufacturing		Wholesale food trade		Retail food trade 1/		Total
	Pension plans	Other benefits	Pension plans	Other benefits	Pension plans	Other benefits	
	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million dollars
1954	98.2	53.4	9.8	4.8	37.1	18.8	222.1
1955	112.8	59.7	11.2	6.2	41.2	22.2	253.3
1956	110.6	66.4	12.1	4.8	49.4	30.1	273.4
1957	127.5	81.1	15.2	8.1	61.3	42.2	335.4
1958	164.1	106.5	17.4	8.9	54.3	43.1	394.3
1959	176.6	120.4	15.5	11.5	58.0	51.5	433.5
1960	185.6	134.9	17.7	11.7	64.4	60.4	474.7

1/ Retail food stores; does not include eating and drinking places.

Source Book of Statistics of Income, Internal Revenue Service, Washington, D. C.

1/ Prepared by Mrs. Toledo Chumley, Marketing Economics Division, Economic Research Service, USDA.

as:

> "Numerous forms of compensation you may pay your employee in an indirect way, such as through insurance, hospitalization, medical care, etc. These forms of compensation are usually referred to as 'fringe benefits.' They are deductible as a business expense provided they meet the requirements . . . Ordinary and necessary . . . when added to all other forms of compensation, are reasonable in amount." 2/

The contributions to pension plans and other fringe benefits in table 9 are those reported by food marketing corporations in accordance with this definition. These contribitions do not include social security and unemployment insurance taxes and pay for time not worked.

The Growth of Fringe Benefits in Food Marketing Industries

Corporations manufacturing food and kindred products accounted for two-thirds of the total fringe benefits in 1960 in the food marketing industries (table 9). These corporations employed two-fifths of the equivalent full-time employees in food marketing industries. Retail food stores accounted for approximately two-fifths of the employees and a fourth of the cost of fringe benefits. Fringe benefits in food manufacturing were larger relative to number of employees than in the other food marketing industries. The average size of manufacturing corporations was larger, and union membership was more extensive.

Contributions to pension plans accounted for about 56 percent of the fringe-benefit costs in 1960 (table 9). Costs of other types of fringe benefits, however, increased at about twice the rate of increase in pension funds from 1954 to 1960. The rate of increase for other fringe benefits was particularly rapid in the retail food trade in which the increase was more than 200 percent compared with 74 percent in the cost of pension plans (table 10).

Table 10.--Annual percentage change in contributions to pension plans and other fringe benefits, food marketing corporations, 1954-60 1/

Year	Food and kindred products manufacturing		Wholesale food trade		Retail food trade	
	Pension plans	Other benefits	Pension plans	Other benefits	Pension plans	Other benefits
	Percent	Percent	Percent	Percent	Percent	Percent
1954-55	14.9	11.8	14.3	29.2	11.1	18.1
1955-56	-2.0	11.2	8.0	-22.6	19.9	35.6
1956-57	15.3	22.1	25.6	68.8	24.1	40.2
1957-58	28.7	31.3	14.5	9.9	-11.4	2.1
1958-59	7.6	13.1	-10.9	29.2	6.8	19.5
1959-60	5.1	12.0	14.2	1.7	11.0	17.3
1954-60	89.0	152.6	80.6	143.8	73.6	221.3

1/ Calculated from data in table 9.

2/ Tax Guide for Small Business, the Internal Revenue Service, Washington, D. C., 1963, p. 37.

Fringe benefits (other than pension plans) have increased faster than wages and salaries in the food marketing industries. Year-to-year increases in fringe benefits exceeded 12 percent each year from 1955 to 1960 and amounted to 30 percent from 1956 to 1957 (table 11). The total cost of fringe benefits in 1960 was 169 percent higher than in 1954. During the same period annual increases in wages and salaries never exceeded 15 percent. Wages and salary payments totaled 34 percent more in 1960 than in 1954.

Table 11.--Annual percentage change in total wage and salary payments and in fringe benefits other than pensions, food marketing corporations, 1954-60

Item	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60
	Percent	Percent	Percent	Percent	Percent	Percent
Total wage and salary payments 1/	5.5	14.3	9.7	-8.8	8.6	2.4
Fringe benefits other than pensions 2/	14.4	15.0	29.7	20.6	15.7	12.9

1/ Compiled from data of Department of Commerce and Department of Labor.
2/ Compiled from data of Internal Revenue Service; includes processing, wholesaling, and retailing firms.

Disclosure Legislation

Because of the growth of fringe-benefit programs, Congress enacted the Welfare and Pension Plans Disclosure Act in 1958 to protect the interests of participants in these programs. 3/ This act required administrators of welfare and pension plans, with certain exceptions, to file descriptions of their plans with the Department of Labor by April 1, 1959; subsequent annual reports also are required. The act provides that the annual report must include, among other information, the number of employees covered by the plan, amounts contributed by employees and employer, a summary statement of assets and liabilities and receipts and disbursements, and a statement regarding salaries, fees, and commissions charged. The act does not cover plans established by employers or employees not engaged in or affecting interstate commerce or covering 25 or fewer employees. An amendment in 1962 provides that plans covering fewer than 100 participants are exempt from filing annual reports unless required by the Secretary of Labor. The information filed must also be made available to participants or beneficiaries in a plan. These records are open for public inspection.

Economic Aspects of Fringe Benefits

The size and certainty of fringe-benefit payments are economically significant. Because important portions of fringe benefits are not tied to the number of product units made or sold or the number of hours worked, they act as "quasi-fixed costs."

When hiring, management has to consider the cost of fringe benefits in addition to wages. When the same amount of production can be obtained by overtime without any increments in fringe-benefit

3/ Public Law 85-836, 85th Congress, S. 2888, Aug. 28, 1958.

obligations, it may be advantageous to pay overtime wages rather than hire additional workers.

There is also an increasing tendency for management and union officials to negotiate increases in fringe benefits instead of wages. 4/ A meat cutters' union in California accepted the equivalence of an 11 cents per hour increase in fringe benefits (rather than a direct wage increase). Other recent contracts provide increases from $3 to $4 a week per employee in company payments to health and welfare funds and boosts of 11.5 to 14.5 cents an hour in company pension payments. The growing trend in union officials' use of fringe benefits in negotiating is shown in a study of fringe benefits in the "Greater Boston Area." Evidence is cited to show that union leaders are reluctant to give workers a choice between a direct pay increase and its equivalent in fringe benefits. 5/ Fringe benefits will continue to be a primary factor in all future union-management negotiations.

Employers benefit in collective bargaining when they can satisfy employees with increases in fringe-benefit payments instead of direct wage increases. As in the case of a wage-rate increase, to the extent that net productivity is increased by the benefits, their real cost is lowered. Also, if a more stable work force is maintained, recruitment costs are minimized. Because social security taxes are applied only to pay increases, substitution of fringe benefits for wage increases may save employers money. Similarly, this substitution enables employers to avoid higher rates of overtime payments, which would result from wage increases. Furthermore, the cost to the company of group insurance may be less than it seems, because companies frequently receive premium refunds based on claims during the year. In addition, administrative and clerical costs of fringe programs also may be included as fringe costs.

While union and management often appear to favor fringe benefits rather than wage increases, it cannot be assumed that every worker also prefers fringe benefits. Preference varies with sex and age. The Boston study showed that young male employees were more interested in immediate wage raises than in long-term fringe benefits because of installment payments and heavy family expenses. Older men looking forward to retirement were found more receptive to fringe benefits. Many women were more interested in the short-run security of paid sick leave and hospitalization. Not planning to work until retirement, they paid little attention to pensions and group life insurance. 6/ Further, employees must remain on the same job to receive full value of fringe-benefit programs; therefore, the worker's job mobility and flexibility is lowered.

Present tax legislation delays assessing the taxable segment of fringe benefits until they are actually received. This is incentive for labor to negotiate for greater fringe benefits. Hence, fringe benefits seem destined to become increasingly important in explaining changes in the marketing bill.

4/ If the food marketing industries follow patterns of labor contracts and agreements established by other major industries, the trend will be toward more leisure time in the form of paid vacations and holidays. For example, last year the United Steelworkers made an agreement with can makers providing that employees with 15 years' seniority get a 13-week paid vacation every 5 years, and in intervening years continue to receive the regular 3-week vacation. In June 1963, USWA and 11 steel producers agreed to a 13-week vacation every 5 years for the senior half of each firm's hourly work force. In July this year, the USWA made a similar agreement with 5 major aluminum producing firms. Starting next year, most blue-collar aluminum workers will be given a 10-weeks vacation, with 13 weeks pay, once every 5 years.

5/ Francis M. Wistert Fringe Benefits, (New York: Reinhald Publishing Corp., 1959), p. 5.

6/ See page 5 of source cited in footnote 5.

FREEZE-DRYING OF FOODS - A LOOK INTO THE FUTURE 1/

Freeze-dried food gained national attention recently from its use by high-altitude mountain climbers. It also has been used by our astronauts in space flights. This new processing method offers promise of growing into a multi-million-dollar industry in a few years. Freeze-dried foods may be stored 2 years or longer at room temperatures. Quickly and easily rehydrated, they maintain a high degree of flavor.

This article (1) describes the advantages and limitations of freeze-drying, (2) reports some results of USDA research on taste acceptability of freeze-dried foods and probable costs of processing specified volumes, and (3) on the basis of research, suggests some prospects for commercial development of the process.

What is Freeze-Drying?

Food to be freeze-dried is first blanched, cooked, or processed in other ways. Then, to facilitate drying, it is cut into small pieces, and they are individually quick-frozen conventionally. The frozen food is placed in a drying cabinet where the pressure is lowered. Heat is applied to the food so the ice sublimates, always maintaining a frozen product. 2/ Water in the form of vapor is removed from the cabinet; when the moisture level in the food has been reduced to about 2 percent, the process is complete.

The final product is a dried, not a frozen food. Thus dehydrated, it may be kept without refrigeration, although it must be tightly packaged to keep out air and moisture. Drying may require 6 to 22 hours, depending on the product and the temperatures and pressures used. However, for most foods an 8 to 12 hour drying cycle is adequate -- providing the food is no more than three-eights of an inch thick and no more than about 3 pounds of food per square foot of cabinet shelf area are dried. This need for small particle sizes in drying may be a disadvantage, since some foods lose their appeal when fragmented. It is theoretically possible, although costly, to dry a large unit of food such as an egg, a roast, or a whole turkey.

This drying technique is not new, having been used many years in biology, medicine, and pharmacy. 3/ The technique is employed in preparing blood plasma and pharmaceuticals, and for drying skin and bone tissue, insects and small animal specimens. The Smithsonian Institution has an exhibit on these techniques applied to museum use. Investigating possibilities of freeze-drying are manufacturers of dairy products who dry cultures and animal breeders interested in semen handling.

Until the last decade, the method was too expensive to use in preserving food. Recent innovations in drying techniques have shortened drying time, however, so many food processors and handlers are interested now. Although costs are still comparatively high, they are within the

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1/ Prepared by Kermit Bird, agricultural economist, Marketing Economics Division, Economic Research Service.

2/ Sublimation is the physical change of a solid to a vapor, bypassing the liquid phase.

3/ The newness of its application to foods is shown in a bibliography Freeze-Drying of Foods, A List of Selected References, July 1963, National Agricultural Library List 77, USDA. Only 3 books are listed on freeze-drying of foods. However, the bibliography includes titles of over 700 journal, periodical, and magazine articles.

Single copies of publications cited in this article may be obtained by writing to the Division of Information, Office of Management Services, USDA, Washington, D. C., 20250.

range of possibility for higher-value foods, foods for specialized uses, and dried foods for which good flavor is especially desired.

Advantages and Limitations of Freeze-Drying

Freeze-dried foods retain many physical characteristics of the frozen foods from which they are derived. Because cellular structure is maintained, the physical state of the rehydrated food is about the same as thawed frozen food. Much original flavor remains since most flavor-carrying oils are not removed in sublimation. Some water-soluble flavors, however, are lost. Flavor loss is a common problem in other food drying techniques, particularly those using heat; and freeze-dried foods generally taste better than other dried foods. In addition, they rehydrate faster than most conventionally-dried foods.

Freeze-dried foods have the advantages of all dried foods, except they are more bulky. They are stored and transported without refrigeration, are lightweight, and have long shelf life. These advantages, coupled with flavor retention capacity, give freeze-dehydrated foods an enviable position among processed products.

On the negative side, freeze-drying is slow; and, as a consequence, costs are high. Freeze-drying equipment is expensive; the newness of the industry suggests a high equipment obsolescence, which dictates a fast write-off in depreciation.

Another limitation is that expensive containers are needed. An airtight, moisture-resistant, and light-proof package is needed, and packaging must be done promptly. Entry of oxygen or water into the package shortens the life of the product; hence, a can or tight, laminated-foil pouch is indicated. Many freeze-dried foods are vacuum or nitrogen packed to keep oxygen levels at a minimum. This adds to packaging expense.

Desirable Foods for Freeze-Drying

In general, foods that freeze well are suitable for freeze-drying. Foods high in sugar or fat content, like fatty pork, do not freeze easily and are difficult to freeze-dry. However, such products as lean pork, avocadoes, and cream cheese are freeze-dried successfully. Foods that lose their physcial structure when frozen and thawed make poor freeze-dried foods. Examples are melons, tomatoes, and lettuce. But these may be freeze-dried successfully where retention of physical structure is not important, as in tomato puree.

Freeze-drying seems best adapted to meats, especially poultry and beef. Fishery products, including shellfish, also dry nicely. Most vegetables, fruits, berries, mushrooms, spices, and seasonings are dried successfully. Some dairy products including cottage cheese, dips, cheeses, and beverages seem well adapted.

Main Uses of Freeze-Dried Foods

The largest purchaser of freeze-dried foods is the U. S. Armed Forces. Many foods suited to special military uses have been developed by Quartermaster personnel. Because of their long shelf life and high quality, freeze-dried foods are now planned as basic ingredients of the new combat rations, the "Quick Serve" and the "Meal Ready to Eat." Both rations include freeze-dried items that were cooked before drying. Some freeze-dried foods, mainly beef, pork chops, and fish squares (uncooked) are being purchased in large quantities for mess usage. Military subsistence this year is taking bids for 210,000 pounds of dried meats. This is equivalent to about a half-million pounds of rehydrated foods.

The institutional market is portion-control and quality conscious. Recent sales of freeze-dried shrimp, crab, and chicken indicate this market may be an important outlet for many of these foods.

The "mix" market promises to absorb large quantities of freeze-dried foods. The entire output of several freeze-dry processing plants consists of chicken dices, beef dices, and mushrooms for dry-soup mixes. These freeze-dry pieces are mixed with other dried ingredients in the soup sold to the public. Other mixes now on the market include chili, creoles, and a mixture of sausage and scrambled eggs. Freeze-dried eggs, by the way, are notably superior to spray-dried eggs used by the military in World War II.

The market for specialized products such as spices, seasonings, extracts, and beverages may well become important. These products retain a very high proportion of their original flavor when freeze-dried. Also included may be dried berries and fruits to be used in bakery foods, ready-to-eat cereals, cake mixes, gelatin desserts, and puddings. At present, one U. S. company is preparing to freeze-dry coffee, and in Brazil another firm is tooling up for coffee-extract dehydration. Several concerns abroad freeze-dry tea.

Another specialized use of freeze-dry items is for the camping trade. Fifteen or 20 prepared dishes are on the market in sporting goods stores. Prices are high. Volume, although small at present, shows signs of increasing.

Growth of the Industry

A year ago 6 freeze-drying plants were operating in the United States and Canada. Now there are 12, with a combined capacity of about 50 to 60 tons of raw product per day. This comparison typifies growth of this new, but rapidly expanding, industry. In the British Isles there are 5 plants. There are 13 on the Continent. Several in other areas of the world complete the roster of about 32 plants commercially producing foods. 4/ Other plants are under construction, and several now in business are enlarging their facilities.

The largest volumes of freeze-dried items in world production are chicken pieces, meat pieces and slices, mushrooms, and vegetable pieces. 5/ Most are used in dried soups. Other foods include seafoods (especially shellfish), fruits and berries, extracts, and beverages.

Some companies freeze-dry foods for use in products they manufacture and market. Ingredients for soup mixes are an example. Other companies dry and sell freeze-dried items for blending or mixing. Most U. S. firms do contract work for the Government. Two U. S. firms and one in Canada do custom drying. In this operation the customer supplies the product to be dried and may also freeze and package the food. No pattern has emerged as to the type of operation likely to prevail in the future. Several types probably will exist, as is the case in the canning and freezing industries.

Results of Research

The rapidity of the industry's growth, and even its survival, will depend on its ability to manufacture and sell products that will (1) achieve a stable and relatively extensive volume of production, (2) be cost competitive with canned, dehydrated, and frozen products, and (3) be in a form readily handled by the marketing system. Research results may provide answers to these questions and an economic understanding of whether the future of freeze-drying is promising. Here are some results of USDA research on freeze-drying:

4/ For a complete listing of freeze-dry processors and freeze-dry equipment manufacturers, see A Directory of Freeze-Drying, April 1963, Kermit Bird, Marketing Economics Division, ERS-USDA.

5/ For poultry industry prospects see: Freeze-Dried Poultry, F-D Report No. 3, January 1963, Kermit Bird, Marketing Economics Division, ERS-USDA, Washington, D.C.

Taste Tests.--During the past year all commercially available freeze-dried foods were tested by an experienced taste panel. 6/ Although results are not conclusive and are not meant to be final evaluations, they give indications of the general level of palatability of freeze-dried foods. Each test food was compared with a similar canned or frozen food.

Freeze-dried items included beef, pork, chicken, seafoods, soups, and mixtures. Palatability of most foods tested was acceptable, according to the panel. Compared with other processed foods, 3 freeze-dried foods were considered superior, 15 were about the same, and 10 were inferior. Freeze-dried foods rated superior were beef noodle soup, chicken noodle soup, and shrimp creole. Those having commendable scores were creamed chicken, ham, sausage, swiss steak, shellfish, and several soups.

Figure 1 shows taste panel results of a representative group of 6 foods. Average panel scores of freeze-dried and conventionally processed foods are compared.

Freeze-dried foods received higher scores when used in prepared mixes than when served plain. Other ingredients and spices in the prepared dishes seemed to offset flavor deficiencies in some freeze-dried foods.

If the ratings of this experienced taste panel are indicative of public acceptance, large-volume production of freeze-dried foods appears feasible. Their chief market, however, may involve competition with conventionally dried foods, which also are similar in usage, lightweight, have long shelf life, and may be stored without refrigeration.

Although freeze-dried foods have some of the quality attributes of frozen foods -- they retain more original physical structure, flavor, and nutritive value than air-, heat-, or vacuum-dried foods -- they are not all-inclusive substitutes for frozen or canned foods. This limits their competitive position in relation to products from these long-established processing industries.

Processing Cost.--Information from a USDA cost study shows that freeze-dry processing may cost from 3 cents to 20 or 30 cents per pound of water removed. In the future, costs may stabilize at about 3 to 7 cents per pound of water removed -- depending on the individual product. 7/

The general purpose of the cost study was to examine costs and analyze factors affecting these costs. These include length of season, hours per day of plant operation, type of product being processed, wage and utility rates, and length of drying cycle. Costs of 4 model plants were developed and organized so effects of these factors could be studied.

Excluding costs of raw materials and packaging, the largest single expense of small freeze-drying plants is labor -- about one-third of total costs. In large plants that are more fully automated, depreciation of equipment is the large expense item -- 40 percent of total costs. Utility costs range from 17 to 20 percent of total costs.

If a small modern plant is operated at full daily capacity for 250 days per year, average costs of freeze-drying chicken are 6 to 7 cents per pound of water removed. In a larger plant under the same conditions, average costs are 4 to 6 cents per pound. These estimates are for plants using 8-hour drying cycles. Where a 12-hour cycle is used, comparable costs range from 4.6 to 8.3 cents per pound of water. Similar costs were calculated for other food products, and they

6/ Complete results are reported in Freeze-Dried Foods: Palatability Tests, MRR-617, July 1963, Kermit Bird, Marketing Economics Division, ERS-USDA.

7/ For a complete analysis of freeze-drying costs see Freeze-Drying Costs, a bulletin to be released soon, Kermit Bird, Marketing Economics Division, ERS-USDA.

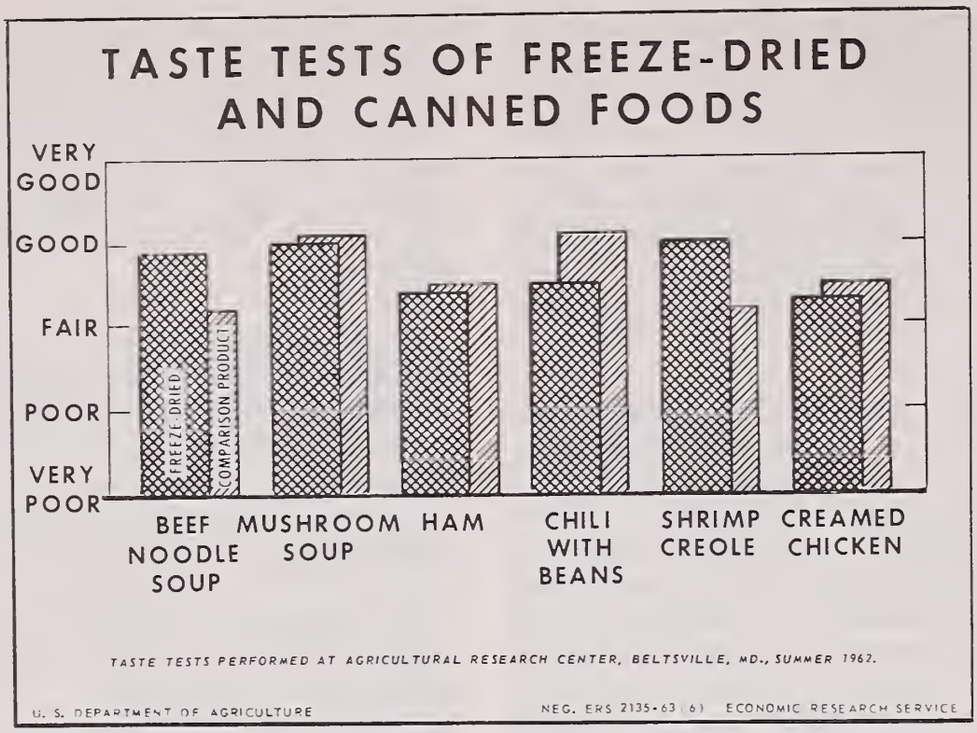


Figure 1

varied in relation to the proportion of water in the raw product to be dried. The accompanying table shows costs for chicken, beef, shrimp, and mushrooms. Note that costs per pound of water removed vary from 6.2 to 7.6 cents per pound (table 12, center column). Costs per pound of input product (the frozen food) are lower, about 4 to 5 cents per pound lower. Thus, freeze-dried chicken will have higher prices than comparable frozen or canned chicken. Costs per pound of freeze-dried food are much higher; as an example, mushroom weights are reduced very much, and cost of the dried product is 45 cents per pound.

Length of season, as in all food processing operations, is an important determinant of freeze-drying costs. For example, if one of the model plants processed shrimp 350 days per year, costs were 3.3 cents per pound. If the plant were operated only 100 days per year, costs were 7.2 cents per pound of water removed.

Hours of daily operation affected costs significantly. A plant operated 24 hours a day had costs of 5 cents per pound of water removed. The same plant operated 16 hours per day had average costs of 7 cents per pound. An 8-hour day operation showed costs averaging 11 cents per pound.

In general, low freeze-dry processing costs may be attained by plants able to handle large volumes of food. A large-capacity plant capable of removing 32 tons of water per day (equivalent to 35 to 40 tons of raw product) will have much lower costs than smaller plants. To keep costs low, plants also need to operate steadily throughout the day and season. In most production areas a large-capacity plant would need to process a variety of foods to obtain its needed volume. To attain minimum cost, a drying plant may need to operate in conjunction with a more complete processing complex that might include food preparation, freezing, storage, packaging, and warehousing.

Table 12.--Estimates of freeze drying costs of 4 freeze-dried foods 1/

Food to be dried	Cost per pound of--		
	Frozen food (input)	Water removed	Dried food (finished product)
	Cents	Cents	Cents
Chicken, cooked dices, 56 percent moisture	4.1	7.6	8.9
Beef, cooked dices, 60 percent moisture	4.4	7.6	10.4
Shrimp, cooked and deveined, 70.4 percent moisture	5.1	7.5	16.2
Mushrooms, blanched raw, 90 percent moisture	5.5	6.2	45.4

1/ Costs pertain to plants with a water-removal capacity of 4 tons per day and operating under these conditions: 24 hours per day, 250 days per year, 8-hour drying cycle. Equipment depreciation is 14 percent. Midwest labor and utility rates are assumed.

The Future of Freeze-Drying.--We may summarize results of the taste and cost studies as follows: The market for freeze-dried foods currently is limited to individual items since the process is not applicable to all foods. Foods that appear to have the greatest volume potential are those that may be used in mixes such as soups, stews, prepared meals, and dairy dips. In addition, there are certain seafoods and items used for special purposes that appear promising.

Costs of freeze-drying are high at present, but may be expected to decline to a range of 3 to 7 cents per pound of water removed, depending on volume of operation, wage rates, utility rates, and moisture level of the food processed. Even with costs this low, the potential use of the process is limited to high-value and specialty foods.

This discussion is based on the implicit assumption that present technologies will be continued. It is likely that innovations in processing techniques will lower costs below the expected levels. As an example, our figures are based on a batch process. Newly developed large-volume, flow-process plants are now being engineered, and lower costs may result. Also, as more product testing is done, there is a good prospect that quality of the freeze-dried items will improve.

With these determinations as guides, we may anticipate the future of the industry. First, there does not appear to be an immediate retail market for many of these foods sold as individual items. Sales to the armed forces appear to be the largest market for the products. The second market is for "mixes." The third one is for items used in remanufacturing. The fourth is for specialty items like extracts, seasonings, and spices. The fifth outlet is in freeze-dried coffee, tea, and concentrates. And finally there is the camping market. While small in total, it may be important to individual firms.

Based on test results, we conclude that:

(1) There is a definite future for the freeze-drying industry. This future will be in the products discussed above and products yet to be developed.

(2) The future growth rate of the industry is uncertain. However, if present interest continues, volume

may double or triple each year for the next few years. If so, the volume by 1967 could well be 400 to 500 million pounds of raw input product annually -- about 2 percent of the processed food volume. This is not large, compared with present food freezing and canning industries, which have annual volumes of about 7 billion and 19 billion pounds, respectively. 8/

8/ In 1961, canned food volume (excluding seafoods) totaled 19.3 billion pounds, as follows: Fruits, including pineapple, 4.7 billion; juices, including pineapple, 2.8 billion; vegetables, 8.8 billion; poultry meats, 0.6 billion; and red meats, 2.4 billion. In the same year the volume of frozen food (excluding seafoods) amounted to 6.7 billion pounds, as follows: Fruit and juices, 1.7 billion; vegetables, 2.3 billion; poultry meats, 2.3 billion; and red meats, 0.4 billion.

Farm-Retail Spreads Narrow

Farm-retail price spreads for medium-size turkeys in 5 major U. S. cities averaged 17.7 cents a pound in October-December 1962 (table 13). 2/ These spreads averaged 4.7 cents narrower than in 1961, but nearly the same as in 1960. During the fourth quarter of 1962, spreads narrowed from 18.4 cents in October to 16.4 cents in December. This decline resulted from an increase of 2.1 cents in farm values, while retail prices increased only 0.1 cent.

Farm-retail spreads for large turkeys averaged 18.3 cents in 1962, 3.9 cents narrower than in 1961, and 2.8 cents less than in 1960. In recent years spreads for large turkeys have been about the same or larger than those for medium turkeys.

Elements of the Spread

Spreads between prices paid and received by retail stores for medium turkeys in 5 cities averaged 7.7 cents a pound for October-December 1962, thereby continuing a pattern of year-to-year fluctuations (figure 2). Chicago had the narrowest and San Francisco the widest retail store spreads among 11 major U.S. cities in 1962.

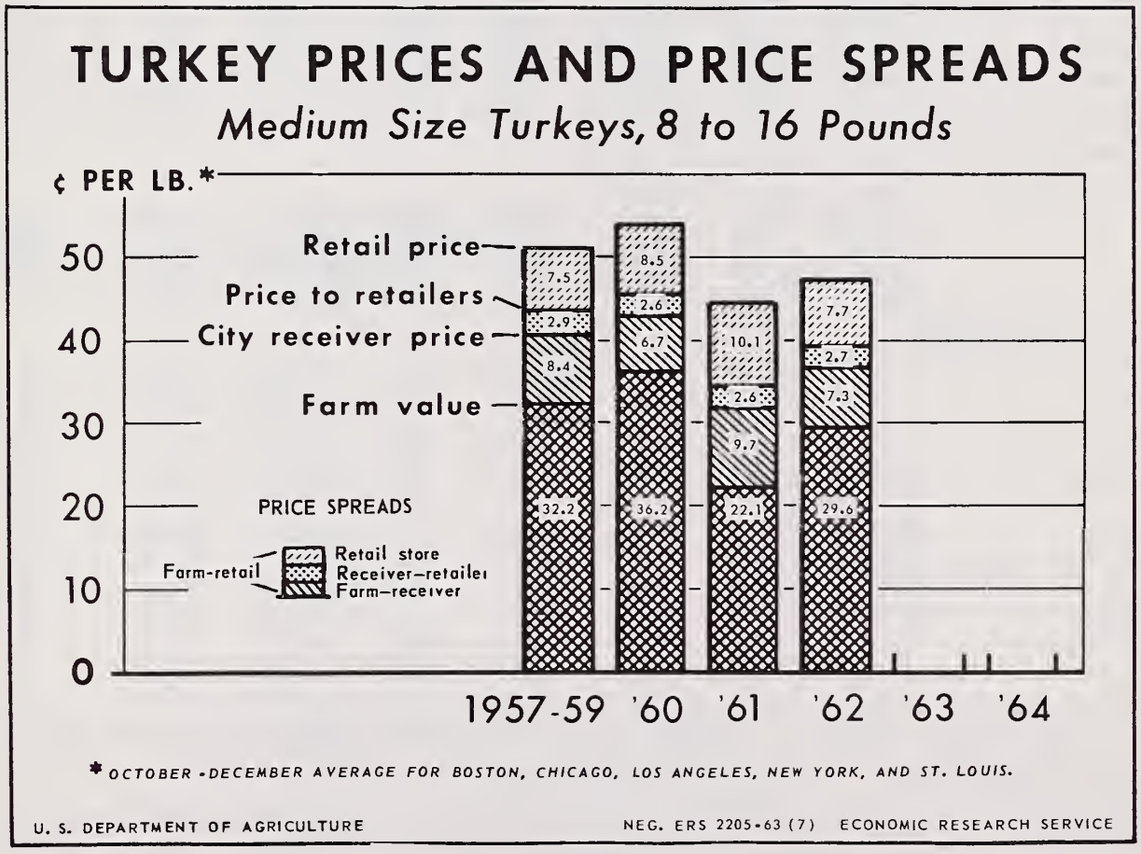


Figure 2

1/ Prepared by Leo R. Gray, agricultural economist, Marketing Economics Division, Economic Research Service.

2/ Boston, New York, Chicago, St. Louis, and Los Angeles.

Table 13.--Turkeys, medium and large: Price spreads and prices per pound, ready-to-cook basis, at various market levels, selected cities, averages October-December 1959-62

Size of turkey 1/, year, and city	Price spreads					Prices			
	Farm-retail	Retail store	Farm-retailer spread: Total	Farm-retailer spread: Receiver-retailer	Farm-retailer spread: Farm-receiver	Retail	To retailers	To city receivers 2/	Farm value 3/
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Medium turkeys:									
5-city average 4/									
1962	17.7	7.7	10.0	2.7	7.3	47.3	39.6	36.9	29.6
1961	22.4	10.1	12.3	2.6	9.7	44.5	34.4	31.8	22.1
1960	5/17.8	5/8.5	9.3	2.6	6.7	5/54.0	45.5	42.9	36.2
1959	16.3	5.9	10.4	3.1	7.3	50.7	44.8	41.7	34.4
Individual cities, 1962:									
Boston	16.5	8.2	8.3	1.9	6.4	46.2	38.0	36.1	29.7
New York	19.4	8.1	11.3	2.4	8.9	49.2	41.1	38.7	29.8
Chicago	15.9	4.8	11.1	3.8	7.3	45.6	40.8	37.0	29.7
St. Louis	16.1	5.9	10.2	3.3	6.9	45.7	39.8	36.5	29.6
Los Angeles	20.5	11.5	9.0	2.1	6.9	49.8	38.3	36.2	29.3
Baltimore	20.9	9.8	11.1	2.7	8.4	50.7	40.9	38.2	29.8
Washington, D. C.	21.8	12.2	9.6	3.1	6.5	51.8	39.6	36.5	30.0
Atlanta	17.4	6/	6/	6/	6/	47.8	6/	6/	30.4
Cleveland	21.1	10.5	10.6	3.2	7.4	50.8	40.3	37.1	29.7
San Francisco	22.9	12.7	10.2	4.0	6.2	52.2	39.5	35.5	29.3
Seattle	19.6	9.9	9.7	6/	6/	48.9	39.0	6/	29.3
Large Turkeys:									
5-city average 4/									
1962	5/18.3	5/6.7	11.6	2.8	8.8	5/43.8	37.1	34.3	25.5
1961	22.2	8.1	14.1	2.3	11.8	41.3	33.2	30.9	19.1
1960	5/21.1	5/9.4	11.7	2.7	9.0	5/51.5	42.1	39.4	30.4
1959	5/17.6	5/3.3	14.3	6/	6/	5/49.2	45.9	6/	31.6
Individual cities, 1962:									
Boston	18.1	5.3	12.8	2.4	10.4	43.6	38.3	35.9	25.5
New York	21.9	10.3	11.6	2.1	9.5	47.5	37.2	35.1	25.6
Chicago	17.2	5.6	11.6	3.3	8.3	42.7	37.1	33.8	25.5
St. Louis	18.0	7.1	10.9	3.3	7.6	43.5	36.4	33.1	25.5
Los Angeles	5/16.4	5/5.5	10.9	2.9	8.0	5/41.9	36.4	33.5	25.5
Baltimore	5/20.6	5/8.2	12.4	2.9	9.5	5/46.2	38.0	35.1	25.6
Washington, D. C.	5/20.5	5/7.0	13.5	4.2	9.3	5/46.3	39.3	35.1	25.8
Atlanta	5/17.0	5/4.6	12.4	3.7	8.7	5/43.1	38.5	34.8	26.1
Cleveland	20.2	8.2	12.0	2.8	9.2	45.8	37.6	34.8	25.6
San Francisco	5/23.5	5/11.4	12.1	2.0	10.1	5/49.0	37.6	35.6	25.5
Seattle	6/	6/	11.0	6/	6/	6/	36.5	6/	25.5

1/ Turkey size weight ranges are: Medium -- 8 to 16 pounds; large -- more than 16 pounds.

2/ City receiver prices in Chicago, Los Angeles, and New York are wholesale selling prices but in the other 7 cities are f.o.b. delivered city prices.

3/ Farm value is the payment received by producers for the quantity of live turkey equivalent to 1 pound of ready-to-cook turkey. These values are weighted averages computed from prices reported in major commercial turkey producing areas supplying the designated cities, such as San Joaquin Valley, Shenandoah Valley, and the Midwest.

4/ 5-city average includes Boston, Chicago, Los Angeles, New York, and St. Louis.

5/ Estimated from data for less than 3 months.

6/ Insufficient data.

Compiled from retail prices collected by the Bureau of Labor Statistics and from prices to retailers, city receiver prices, and prices received by farmers collected by Federal and State market news services.

Farm-retailer spreads (between prices received by farmers and paid by retailers) were narrowest in Boston and widest in New York among the 11 cities in 1962 (table 13).

Five-city average farm-retailer price spreads in the October-December periods narrowed 2.3 cents a pound from 1961 to 1962. Most of this reduction occurred in the farm-to-city receiver component, which narrowed 2.4 cents a pound.

Prices Increased from 1961 to 1962

Five-city average prices of turkeys in October-December increased several cents a pound at all market levels from 1961 to 1962. Farm values for medium-size turkeys increased 7.5 cents a pound, prices to retailers were up 5.2 cents, and retail prices were 2.8 cents higher.3/ For large-size turkeys, farm values were 6.4 cents higher, prices to retailers increased 3.9 cents, and retail prices were up 2.5 cents.

The turkey industry sought to improve its economic position by adjusting supplies to market requirement. Turkey producers reduced the number of turkeys raised in 1962, and the industry intensified its promotion campaign to sell more turkeys. The total number of turkeys raised in the United States declined 15 percent, from 108.1 million in 1961 to 91.8 million in 1962. Extensive specialing of turkeys by retailers helped move substantial quantities during January-July, 1962. Combined commercial exports of turkeys, and sales to the U. S. armed forces increased in 1962 about 70 percent over 1961.

In the first 7 months of 1962, storage stocks of turkeys on the first of each month exceeded 1961 levels, but after July these stocks dropped below 1961 levels. First-of-month storage stocks during October-December averaged 13 percent lower in 1962 than in 1961. Weekly commercial slaughter in October-December also was smaller in 1962. Thus, smaller supplies in the fourth quarter of 1962 contributed to substantial increases in farm prices and enabled more orderly marketing than in the same period of 1961.

3/ Farm value is the payment received by producers for the quantity of live turkey equivalent to 1 pound of ready-to-cook turkey.

MEATPACKERS' COSTS AND SPREADS FOR BEEF 1/

How much of the consumer price for Choice beef was paid for meatpackers' services? How were costs of these services allocated among labor, packaging materials, grading services, royalties, buying and selling, and operating overhead? And how stable was the packers' spread during the recent decline in prices for fat cattle?

A recent survey of meatpacker costs in commercial-scale fresh beef operations provides some information. Reporting packers were located in the eastern and western Cornbelt and in the Southwest and Southeast. Records used in the analysis were from packers slaughtering mostly steers and heifers. (Records from packers slaughtering high proportions of calves or cows and bulls for boning were excluded from the analysis).

Marketing-Service Costs to Packers

Costs to meatpackers for slaughter and shipping and delivery services comprised about 7 percent of the average retail price of fresh beef (85.1 cents per pound last fall and winter). Of this retail price, the farmer got an average of about 60 percent.

In this survey, packers' costs for buying cattle averaged 0.17 cent per retail pound and costs of selling meats to wholesale and retail customers averaged 0.35 cent (table 14). On the average, reporting packers incurred 3.7 cents per pound costs in dressing, grading, packaging, and loading fresh beef, and about 1.0 cent per pound for shipping fresh beef from packing plants to wholesale distribution centers. For local delivery directly to retailers, packers incurred an additional 0.5 cent per pound. These are costs meatpackers must cover before they make a nickel. Wholesalers handle an important fraction of the beef sold by packers. On this volume, wholesalers' costs of handling, selling, and delivery must be added.

Table 14.--Beef packers' costs per retail pound, by function, fall and winter, 1962-63

Function	Oct.-Dec. 1962	Jan.-Mar. 1963
	Cents	Cents
Buying cattle	0.17	0.17
Dressing, grading, packaging	3.72	3.67
Shipping dressed beef	.93	1.02
Selling	.35	.34
Total packing plant and shipping costs	5.17	5.20
Distribution to retailers	.47	.49
Packers' total cost	5.64	5.69

Meatpacker Costs by Function

How were packers' costs allocated among labor, grading and packaging, buying and selling, and operating overhead?

From October-December 1962 to January-March 1963, packers reported the following cost changes--labor, down from $1.56 to $1.50 per 100 pounds dressed weight; packaging supplies and grading and royalties, down from 20 to 19 cents; buying and selling, down from 39 to 38 cents; overhead cost up from 99 cents to $1.03; shipping and delivery cost, up from $1.05 to $1.11 (table 15). The somewhat lower operating costs and somewhat higher delivery costs were partly offsetting; between seasons individual firms showed remarkably stable total costs.

1/ Prepared by Donald B. Agnew, agricultural economist, Marketing Economics Division, Economic Research Service.

Table 15.--Costs of meatpackers' fresh beef operations, per 100 pounds of dressed beef, fall and winter 1962-63

Item	Oct.-Dec. 1962	Jan.-Mar. 1963
	Dollars	Dollars
Labor	1.56	1.50
Grading, royalties, and packaging 1/	.20	.19
Procurement and selling	.39	.38
Fixed plant and administrative	.99	1.03
Total operating costs	3.14	3.10
Transportation to distribution center	.70	.75
Local delivery	.35	.36
Total shipping and delivery	1.05	1.11
Packers' total costs	4.19	4.21

1/ Three-fourths of the packers reported costs for grading and royalties.

Table 16.--Labor costs of dressing fresh beef at reporting meatpackers' plants, per 100 pounds of dressed weight, by operation, fall and winter 1962-63

Operation	Oct.-Dec. 1962 1/	Jan.-Mar. 1963 2/
	Dollars	Dollars
Kill, offal, cooler	0.90	0.80
Shipping cooler	.34	.39
Hide cellar	.09	.08
Total	1.33	1.27

1/ 13 firms.
2/ 11 firms.

For firms reporting labor cost by task, 80 to 90 cents per 100 pounds dressed weight represented costs for slaughter, chill cooler, and support operations (working up heads and edible offal); 34 to 39 cents per 100 pounds represented costs for order assembly and other shipping cooler tasks, and 8 to 9 cents represented costs of labor in the hide cellar (table 16). Not all packers reported these detailed costs.

Costs were distributed among functions and operations in generally similar proportions in January-March 1963, October-December 1962 (tables 15 and 16), and as reported in an earlier survey for January-December 1961. 2/

Packers' operating costs approximated the spread between costs of live cattle and returns from beef carcasses and edible offal (table 17). Byproduct values, in former years generally close to operating costs, have trended downward in recent years, and, during this period, more closely approximated costs of shipping and delivery.

Table 17.--Selected costs and spreads per 100 pounds dressed beef, for reporting packers, fall and winter 1962-63

Item	Oct.-Dec. 1962	Jan.-Mar. 1963
	Dollars	Dollars
Spread on dressed beef (carcass and offal)	3.31	3.17
Operating cost	3.14	3.10
Byproduct value	1.96	1.81
Freight and delivery cost	1.05	1.11

2/ "Meatpacker Costs in Fresh Beef Operations--A Pilot Survey," an address by Donald B. Agnew, Meeting of Southwestern Division, National Independent Meat Packers Association, Dallas, Texas, March 8-9, 1963, released by ERS-USDA.

No consistent cost differences could be attributed to size or location of plant. But most cost elements varied among plants, and there generally was a wide range in cost among similar plants. (Comparisons were made for small groups of similar plants, rather than individual plants with highest and lowest costs, in order to protect identities of cooperating firms.)

Did Packers' Margins Widen When Cattle Prices Dropped?

As prices for fat cattle dropped last fall and winter, price spreads for reporting packers narrowed moderately (table 18). Historically, packer spreads have tended to widen when cattle prices decline. But packers reported falling wholesale prices for carcass beef, f.o.b. their loading docks, accompanying their lower prices paid for live cattle. The excessive supplies of slaughter stock caused prices of cattle to drop, and the accumulating inventories of carcass beef in packers' coolers caused beef prices, f.o.b. packing plant, to drop. The data indicated also that packers' costs (other than for cattle) remained about the same. The variability in operating costs among similar plants, however, emphasizes the importance of additional study to reduce marketing costs.

Table 18.--Packer costs and spreads per 100 pounds of dressed beef, fall and winter, 1962-63

Item	Oct.-Dec. 1962	Jan.-Mar. 1963
	Dollars	Dollars
Wholesale values of beef	40.85	39.40
Cost of cattle	35.58	34.42
Gross spread	5.27	4.98
Operating costs and delivery	4.19	4.21
Partial net margin 1/	1.08	.77

1/ Before payment of interest, taxes and returns to investment.

As cattle prices fell last winter, there was an approximate 2-month lag in adjustment of retail beef prices. 3/ This may have been caused in part by the nature of price discovery and the market's slowness in reflecting price changes between all market levels, and in part by differences in the bargaining power of retail chains compared with packers, and by retailers' pricing practices.

Packer Spread Compared with Packer Costs

Little is known about the mechanism of price adjustment, or the role of packer stocks of carcass beef in relation to price changes. Perhaps increased marketings of fat cattle last fall led to accumulation of carcass beef in packers' coolers in quantities exceeding market estimates of the market's requirements (ability to absorb) at current prices and contributed to lower prices for fresh beef. Packers accordingly reduced prices paid for live cattle; otherwise, dollar value of inventories would have increased excessively.

While reporting packers' operating costs decreased 4 cents per 100 pounds of wholesale beef, from October-December 1962 to January-March 1963, their freight and delivery costs increased 6 cents, mostly freight costs, indicating wider-range selling of the increased beef supply (table 15). Moreover, while their average cost for live cattle declined $1.16 per 100 pounds dressed weight, carcass value was down $1.30 per 100 pounds, and (because of declining byproduct prices) total realized income was $1.45 lower (tables 17 and 18). Thus, some packers may have reduced prices paid for cattle less than the full amount of decrease in prices of carcass beef and byproducts.

3/ "Adjustments in Retail Prices of Beef to Supply Changes," by William C. Motes, The Marketing and Transportation Situation, (MTS-149), May 1963, ERS-USDA, pp. 13-19.

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3. "Domestic Distribution Pattern for Rice -- Preliminary Data for 1961 and 1962," by Edward J. McGrath, U. S. Dept. Agr., Econ. Res. Ser., ERS-126, May 1963. (Report gives data for rice 5 years later than that published in AMS-193, June 1957.)
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Table 19.--Farm food products: Retail cost and farm value, April-June 1963, January-March 1963, April-June 1962, and 1957-59 average 1/

Product 2/	Retail unit	Retail cost						Net farm value 3/					
		Apr.-June 1963	Jan.-Mar. 1963	Apr.-June 1962	1957-59 average	Percentage change Apr.-June 1963 from-		Apr.-June 1963	Jan.-Mar. 1963	Apr.-June 1962 4/	1957-59 average	Percentage change Apr.-June 1963 from-	
						Jan.-Mar. 1963	Apr.-June 1962					Jan.-Mar. 1963	Apr.-June 1962
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket	)	1,071.39	1,080.09	4/1,065.82	1,037.26	-1	1	389.40	4/400.04	400.97	409.76	-3	-3
Meat products	)	271.18	285.27	4/277.99	277.43	-5	-2	129.54	4/134.91	142.90	150.65	-4	-9
Dairy products	)	197.72	199.21	4/198.40	193.54	-1	5/	84.90	4/87.75	85.14	87.76	-3	5/
Poultry and eggs	)	82.42	90.13	4/80.54	92.03	-9	2	48.19	54.91	46.90	56.02	-12	3
Bakery and cereal products	)												
All ingredients	)	172.87	172.66	4/169.97	159.22	5/	2	31.62	4/31.55	31.48	29.98	5/	5/
Grain	) Average	---	---	---	---	---	---	24.20	23.97	24.23	22.33	1	5/
All fruits and vegetables	) quantities	258.64	245.27	250.21	227.64	5	3	75.75	4/71.72	75.30	65.61	6	1
Fresh fruits and vegetables	) purchased	159.13	4/148.98	155.73	134.44	7	2	57.96	4/54.52	55.44	46.58	6	5
Fresh vegetables	) per urban	72.24	74.56	79.16	68.70	-3	-9	20.71	21.64	26.47	22.03	-4	-22
Processed fruits and vegetables	) wage-earner and clerical-worker family	99.51	96.29	94.48	93.20	3	5	17.79	4/17.20	19.86	19.03	3	-10
Fats and oils	) in 1952	42.05	42.46	43.80	44.33	-1	-4	11.51	4/11.41	11.80	12.49	1	-2
Miscellaneous products	)	46.51	45.09	44.91	43.07	3	4	7.89	4/7.79	7.45	7.25	1	6
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Choice grade)	Pound	79.1	84.5	80.5	78.1	-6	-2	43.3	4/47.6	49.1	49.7	-9	-12
Lamb (Choice grade)	Pound	73.0	72.2	4/69.8	71.3	1	5	39.0	36.0	35.4	39.8	8	10
Pork (retail cuts)	Pound	55.5	57.7	57.8	60.7	-4	-4	28.3	27.6	29.6	32.5	3	-4
Butter	Pound	74.8	74.9	75.0	74.6	5/	5/	54.6	4/54.4	54.0	51.8	5/	1
Cheese, American process	½ pound	36.2	36.1	36.3	32.8	5/	5/	14.6	14.7	14.2	14.2	-1	3
Ice cream	½ gallon	84.6	84.9	85.9	87.5	5/	-2	6/22.7	6/22.5	6/22.4	22.2	1	1
Milk, evaporated	14½ ounce can	15.4	15.4	15.6	15.0	0	-1	6.2	6.3	6.1	6.2	-2	2
Milk, fluid	Quart	24.8	25.1	24.9	24.5	-1	5/	10.1	10.6	10.2	10.8	-5	-1
Chickens, frying, ready-to-cook	Pound	40.0	40.7	39.9	44.9	-2	5/	20.4	21.0	19.7	24.4	-3	4
Eggs	Dozen	49.0	56.4	47.2	54.5	-13	4	31.4	37.8	30.7	36.1	-17	2
Bread, white													
All ingredients	Pound	21.6	21.6	21.1	19.3	0	2	3.2	3.2	3.2	3.0	0	0
Wheat	Pound	---	---	---	---	---	---	2.6	2.6	2.6	2.4	0	0
Crackers, soda	Pound	31.0	31.1	31.0	29.1	5/	0	4.1	4.1	4.1	3.8	0	0
Corn flakes	12 ounces	28.4	28.2	26.9	24.7	1	6	2.5	2.3	2.6	2.9	9	-4
Corn meal	Pound	14.5	14.3	14.0	12.9	1	4	2.5	2.3	2.6	2.9	9	-4
Flour, white	5 pounds	57.2	56.7	56.7	54.8	1	1	20.7	20.5	20.5	18.9	1	1
Rolled oats	18 ounces	24.1	24.1	23.6	20.2	0	2	4.0	4.0	4.1	3.8	0	-2
Apples	Pound	18.7	15.2	18.0	15.1	23	4	6.8	5.8	6.7	4.6	17	1
Grapefruit	Each	17.2	15.5	13.0	12.5	11	32	5.1	3.8	2.1	2.5	34	143
Lemons	Pound	23.4	26.4	19.2	18.9	-11	22	6.7	7.9	4.4	4.5	-15	52
Oranges	Dozen	96.4	86.0	77.3	66.8	12	25	39.5	35.4	20.4	23.3	12	94
Beans, green	Pound	26.8	29.7	30.6	24.6	-10	-12	10.3	13.5	12.5	10.6	-24	-18
Cabbage	Pound	10.9	13.2	14.6	9.0	-17	-25	2.4	3.4	4.8	2.4	-29	-50
Carrots	Pound	14.4	14.7	15.4	14.7	-2	-6	2.8	2.7	5.4	3.7	4	-48
Celery	Pound	13.9	14.8	17.4	15.1	-6	-20	3.6	4.1	6.6	4.4	-12	-45
Lettuce	Head	19.4	19.4	21.0	17.6	0	-8	6.2	6.0	6.7	5.9	3	-7
Onions	Pound	11.7	10.1	13.8	10.3	16	-15	4.2	2.5	4.8	3.4	68	-12
Potatoes	10 pounds	65.0	62.2	65.7	61.0	5	-1	16.1	16.4	18.7	17.9	-2	-14
Sweetpotatoes	Pound	13.6	13.1	17.3	14.8	4	-21	4.6	4.5	7.5	4.8	2	-39
Tomatoes	Pound	31.4	38.5	33.6	30.4	-18	-7	9.6	11.3	11.5	10.7	-15	-17
Orange juice, canned	46 ounce can	52.3	46.4	42.7	41.6	13	22	8.3	8.2	13.1	12.4	1	-37
Peaches, canned	No. 2-½ can	32.6	32.2	33.0	34.8	1	-1	6.1	6.1	6.4	6.1	0	-5
Beans with pork, canned	16 ounce can	15.0	15.0	14.9	14.9	0	1	2.3	2.2	2.2	2.4	5	5
Corn, canned	No. 303 can	19.2	19.4	20.0	18.1	-1	-4	2.4	2.4	2.3	2.4	0	4
Peas, canned	No. 303 can	22.5	22.6	22.4	21.0	5/	5/	2.9	2.9	3.0	3.1	0	-3
Tomatoes, canned	No. 303 can	15.4	15.3	15.8	15.8	1	-3	2.6	2.6	2.7	2.3	0	-4
Orange juice concentrate, frozen	6 ounce can	30.3	26.2	20.7	23.7	16	46	8.7	6.9	8.2	8.4	26	6
Strawberries, frozen	10 ounces	27.5	27.4	27.2	26.4	5/	1	6.3	6.3	6.0	6.0	0	5
Beans, green, frozen	9 ounces	23.5	23.0	22.7	22.4	2	4	4.1	4.1	4.1	4.4	0	0
Peas, frozen	10 ounces	21.1	21.0	20.9	19.7	5/	1	3.0	3.0	3.0	3.2	0	0
Dried beans (navy)	Pound	17.8	17.7	17.3	17.1	1	3	6.5	6.3	6.4	7.0	3	2
Dried prunes	Pound	40.0	39.8	41.4	35.9	1	-3	13.7	13.7	16.2	13.0	0	-15
Margarine, colored	Pound	27.3	27.5	28.7	29.1	-1	-5	7.3	7.1	7.4	7.8	3	-1
Peanut butter	Pound	57.7	57.5	57.4	54.9	5/	1	20.7	19.7	20.9	18.7	5	-1
Salad dressing	Pint	37.8	37.9	38.3	37.5	5/	-1	6.7	4/6.6	6.6	6.9	2	2
Vegetable shortening	3 pounds	84.1	85.7	91.0	93.6	-2	-8	26.0	4/25.3	26.5	28.2	3	-2
Corn sirup	24 ounces	28.5	28.0	27.3	25.7	2	4	3.1	2.8	2.8	3.0	11	11
Sugar	5 pounds	69.2	59.3	58.3	56.2	17	19	24.1	4/24.1	21.0	20.2	0	15

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

4/ Most farm value figures for April-June 1962 have been revised; figures in other columns revised as indicated.

5/ Less than 0.5 percent.

6/ Farm value of cream and milk only.

Table 20.--Farm food products: Farm-retail spread and farmer's share of the retail cost, April-June 1963, January-March 1963, April-June 1962 and 1957-59 average 1/

Product 2/	Retail unit	Farm-retail spread 3/				Percentage change Apr.-June 1963 from-		Farmer's share			
		Apr.-June 1963	Jan.-Mar. 1963	Apr.-June 1962 4/	1957-59 average	Jan.-Mar. 1963	Apr.-June 1962	Apr.-June 1963	Jan.-Mar. 1963	Apr.-June 1962	1957-59 average
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent
Market basket	Average quantities purchased per urban wage-earner and clerical-worker family in 1952	681.99	4/680.05	664.85	627.50	5/	3	36	37	38	40
Meat products		141.64	4/150.36	135.09	126.78	-6	5	48	4/47	4/51	54
Dairy products		112.82	4/111.46	113.26	105.78	1	5/	43	44	43	45
Poultry and eggs		34.23	35.22	33.64	36.01	-3	2	58	61	58	61
Bakery and cereal products											
All ingredients		141.25	4/141.11	138.49	129.24	5/	2	18	18	19	19
Grain		---	---	---	---	---	---	14	14	14	14
All fruits and vegetables		182.89	4/173.55	174.91	162.03	5	5	29	29	30	29
Fresh fruits and vegetables		101.17	4/94.46	100.29	87.86	7	1	36	4/37	36	35
Fresh vegetables		51.53	52.92	52.69	46.67	-3	-2	29	29	4/33	32
Processed fruits and vegetables		81.72	4/79.09	74.62	74.17	3	10	18	18	21	20
Fats and oils		30.54	4/31.05	32.00	31.84	-2	-5	27	27	27	28
Miscellaneous products		38.62	4/37.30	37.46	35.82	4	3	17	4/17	4/17	17
		Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef (Choice grade)	Pound	35.8	4/36.9	31.4	28.4	-3	14	55	4/56	4/61	64
Lamb (Choice grade)	Pound	34.0	36.2	34.4	31.5	-6	-1	53	50	4/51	56
Pork (retail cuts)	Pound	27.2	30.1	28.2	28.2	-10	-4	51	48	4/51	54
Butter	Pound	20.2	4/20.5	21.0	22.8	-1	-4	73	4/73	72	69
Cheese, American process	½ pound	21.6	21.4	22.1	18.6	1	-2	40	41	39	43
Ice cream	½ gallon	61.9	62.4	63.5	65.3	-1	-3	27	27	26	25
Milk, evaporated	14½ ounce can	9.2	9.1	9.5	8.8	1	-3	40	41	39	41
Milk, fluid	Quart	14.7	14.5	14.7	13.7	1	0	41	42	4/41	44
Chickens, frying, ready-to-cook	Pound	19.6	19.7	20.2	20.5	-1	-3	51	52	4/49	54
Eggs	Dozen	17.6	18.6	16.5	18.4	-5	7	64	67	4/65	66
Bread, white											
All ingredients	Pound	18.4	18.4	17.9	16.3	0	3	15	15	15	16
Wheat	Pound	---	---	---	---	---	---	12	12	4/12	12
Crackers, soda	Pound	26.9	27.0	26.9	25.3	5/	0	13	13	13	13
Corn flakes	12 ounces	25.9	25.9	24.3	21.8	0	7	9	8	10	12
Corn meal	Pound	12.0	12.0	11.4	10.0	0	5	17	16	19	22
Flour, white	5 pounds	36.5	36.2	36.2	35.9	1	1	36	36	36	34
Rolled oats	18 ounces	20.1	20.1	19.5	16.4	0	3	17	17	17	19
Apples	Pound	11.9	9.4	11.3	10.5	27	5	36	38	37	30
Grapefruit	Each	12.1	11.7	10.9	10.0	3	11	30	25	16	20
Lemons	Pound	16.7	18.5	14.8	14.4	-10	13	29	30	23	24
Oranges	Dozen	56.9	50.6	56.9	43.5	12	0	41	41	26	35
Beans, green	Pound	16.5	16.2	18.1	14.0	2	-9	38	45	41	43
Cabbage	Pound	8.5	9.8	9.8	6.6	-13	-13	22	26	33	27
Carrots	Pound	11.6	12.0	10.0	11.0	-3	16	19	18	35	25
Celery	Pound	10.3	10.7	10.8	10.7	-4	-5	26	28	38	29
Lettuce	Head	13.2	13.4	14.3	11.7	-1	-8	32	31	32	34
Onions	Pound	7.5	7.6	9.0	6.9	-1	-17	36	25	35	33
Potatoes	10 pounds	48.9	45.8	47.0	43.1	7	4	25	26	4/28	29
Sweetpotatoes	Pound	9.0	8.6	9.8	10.0	5	-8	34	34	43	32
Tomatoes	Pound	21.8	27.2	22.1	19.7	-20	-1	31	29	4/34	35
Orange juice, canned	46 ounce can	44.0	38.2	29.6	29.2	15	49	16	18	31	30
Peaches, canned	No. 2-½ can	26.5	26.1	26.6	28.7	2	5/	19	19	19	18
Beans with pork, canned	16 ounce can	12.7	12.8	12.7	12.5	-1	0	15	15	15	16
Corn, canned	No. 303 can	16.8	17.0	17.7	15.7	-1	-5	12	12	12	13
Peas, canned	No. 303 can	19.6	19.7	19.4	17.9	-1	1	13	13	13	15
Tomatoes, canned	No. 303 can	12.8	12.7	13.1	13.5	1	-2	17	17	17	15
Orange juice concentrate, frozen	6 ounce can	21.6	19.3	12.5	15.3	12	73	29	26	40	35
Strawberries, frozen	10 ounces	21.2	21.1	21.2	20.4	5/	0	23	23	22	23
Beans, green, frozen	9 ounces	19.4	18.9	18.6	18.0	3	4	17	18	4/18	20
Peas, frozen	10 ounces	18.1	18.0	17.9	16.5	1	1	14	14	4/14	16
Dried beans (navy)	Pound	11.3	11.4	10.9	10.1	-1	4	37	36	37	41
Dried prunes	Pound	26.3	26.1	25.2	22.9	1	4	34	34	39	36
Margarine, colored	Pound	20.0	20.4	21.3	21.3	-2	-6	27	26	26	27
Peanut butter	Pound	37.0	37.8	36.5	36.2	-2	1	36	34	36	34
Salad dressing	Pint	31.1	4/31.3	31.7	30.6	-1	-2	18	17	17	18
Vegetable shortening	3 pounds	58.1	4/60.4	64.5	65.4	-4	-10	31	4/30	29	30
Corn sirup	24 ounces	25.4	25.2	24.5	22.7	1	4	11	10	10	12
Sugar	5 pounds	45.1	4/35.2	37.3	36.0	28	21	35	4/41	4/36	36

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ The farm-retail spread is the difference between the retail cost and the net farm value shown in table on opposite page.

4/ Most farm-retail spread figures for April-June 1962 have been revised; figures in other columns revised as indicated.

5/ Less than 0.5 percent.

Table 21--Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, April-June 1963 1/

Product 2/	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket			1,071.39	---	---	389.40	681.99	36
Meat products			271.18	---	---	129.54	141.64	48
Dairy products			197.72	---	---	84.90	112.82	43
Poultry and eggs		Average quantities	82.42	---	---	48.19	34.23	58
Bakery and cereal products	Farm produce equivalent	purchased						
All ingredients	to products bought	per urban	172.87	---	---	31.62	141.25	18
Grain	by urban families	wage-earner	---	27.10	2.90	24.20	---	14
All fruits and vegetables		and clerical-	258.64	---	---	75.75	182.89	29
Fresh fruits and vegetables		worker	159.13	---	---	57.96	101.17	36
Fresh vegetables		family	72.24	---	---	20.71	51.53	29
Processed fruits and vegetables		in 1952	99.51	---	---	17.79	81.72	18
Fats and oils			42.05	---	---	11.51	30.54	27
Miscellaneous products			46.51	---	---	7.89	38.62	17
			Cents	Cents	Cents	Cents	Cents	Percent
Beef (Choice grade)	2.25 lb. Choice grade cattle	Pound	79.1	47.2	3.9	43.3	35.8	55
Lamb (Choice grade)	2.36 lb. lamb	Pound	73.0	45.1	6.1	39.0	34.0	53
Pork (retail cuts)	2.13 lb. hogs	Pound	55.5	32.2	3.9	28.3	27.2	51
Butter	Cream and whole milk	Pound	74.8	---	---	54.6	20.2	73
Cheese, American process	Milk for American cheese	½ pound	36.2	---	---	14.6	21.6	40
Ice cream	Cream and milk	½ gallon	84.6	---	---	3/22.7	61.9	27
Milk, evaporated	Milk for evaporating	14-½ ounce can	15.4	---	---	6.2	9.2	40
Milk, fluid	Wholesale fluid milk	Quart	24.8	---	---	10.1	14.7	41
Chickens, frying, ready-to-cook	1.37 lb. broilers	Pound	40.0	---	---	20.4	19.6	51
Eggs	1.03 doz.	Dozen	49.0	---	---	31.4	17.6	64
Bread, white								
All ingredients	Wheat and other ingredients	Pound	21.6	---	---	3.2	18.4	15
Wheat	.882 lb. wheat	Pound	---	2.9	.3	2.6	---	12
Crackers, soda	1.38 lb. wheat	Pound	31.0	4.6	.5	4.1	26.9	13
Corn flakes	1.57 lb. white corn	12 ounces	28.4	3.2	.7	2.5	25.9	9
Corn meal	1.34 lb. white corn	Pound	14.5	2.7	.2	2.5	12.0	17
Flour, white	6.9 lb. wheat	5 pounds	57.2	23.0	2.3	20.7	36.5	36
Rolled oats	2.31 lb. oats	18 ounces	24.1	4.7	.7	4.0	20.1	17
Apples	1.08 lb. apples	Pound	18.7	---	---	6.8	11.9	36
Grapefruit	1.04 grapefruit	Each	17.2	---	---	5.1	12.1	30
Lemons	1.04 lb. lemons	Pound	23.4	---	---	6.7	16.7	29
Oranges	1.04 doz. oranges	Dozen	96.4	---	---	39.5	56.9	41
Beans, green	1.09 lb. snap beans	Pound	26.8	---	---	10.3	16.5	38
Cabbage	1.10 lb. cabbage	Pound	10.9	---	---	2.4	8.5	22
Carrots	1.06 lb. carrots	Pound	14.4	---	---	2.8	11.6	19
Celery	1.11 lb. celery	Pound	13.9	---	---	3.6	10.3	26
Lettuce	1.41 lb. lettuce	Head	19.4	---	---	6.2	13.2	32
Onions	1.06 lb. onions	Pound	11.7	---	---	4.2	7.5	36
Potatoes	10.42 lb. potatoes	10 pounds	65.0	---	---	16.1	48.9	25
Sweetpotatoes	1.12 lb. sweetpotatoes	Pound	13.6	---	---	4.6	9.0	34
Tomatoes	1.18 lb. tomatoes	Pound	31.4	---	---	9.6	21.8	31
Orange juice, canned	5.88 lb. Fla. oranges for canning	46 ounce can	52.3	---	---	8.3	44.0	16
Peaches, canned	1.89 lb. Calif. cling	No. 2-1/2 can	32.6	---	---	6.1	26.5	19
Beans with pork, canned	.35 lb. Mich. dry beans	16 ounce can	15.0	---	---	2.3	12.7	15
Corn, canned	2.49 lb. sweet corn	No. 303 can	19.2	---	---	2.4	16.8	12
Peas, canned	.69 lb. peas for canning	No. 303 can	22.5	---	---	2.9	19.6	13
Tomatoes, canned	1.84 lb. tomatoes for processing	No. 303 can	15.4	---	---	2.6	12.8	17
Orange juice concentrate, frozen	3.05 lb. Fla. oranges for frozen concentrated juice	6 ounce can	30.3	---	---	8.7	21.6	29
Strawberries, frozen	.51 lb. strawberries for processing	10 ounces	27.5	---	---	6.3	21.2	23
Beans, green, frozen	.71 lb. beans for processing	9 ounces	23.5	---	---	4.1	19.4	17
Peas, frozen	.70 lb. peas for freezing	10 ounces	21.1	---	---	3.0	18.1	14
Dried beans (navy)	1.00 lb. Mich. dry beans	Pound	17.8	---	---	6.5	11.3	37
Dried prunes	.97 lb. dried prunes	Pound	40.0	---	---	13.7	26.3	34
Margarine, colored	Soybeans, cottonseed and milk	Pound	27.3	---	---	7.3	20.0	27
Peanut butter	1.77 lb. peanuts	Pound	57.7	---	---	20.7	37.0	36
Salad dressing	Cottonseed, soybeans, sugar, and eggs	Pint	37.8	---	---	6.7	31.1	18
Vegetable shortening	Soybeans and cottonseed	3 pounds	84.1	---	---	26.0	58.1	31
Corn sirup	1.90 lb. corn	24 ounces	28.5	3.8	.7	3.1	25.4	11
Sugar	37.60 lb. sugar beets	5 pounds	69.2	25.4	1.3	4/24.1	4/45.1	4/35

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ Farm value of cream and milk only.

4/ Net farm value adjusted for Government payments to producer was 28.2 cents, farm-retail spread adjusted for Government processor tax was 42.4 cents, and farmer's share of retail cost based on adjusted farm value was 41 percent.

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